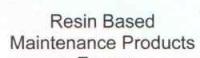


81

Packing Jointing

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Comparison Table of Packing Products

Tabla comparativa de Empaqueadoras

パッキング製品の比較表 密封製品厂商一覧

Products from a few manufacturers are listed below for your reference. If there is some question as to what types of products are most suitable for the working conditions, please ask for further information or brochures from the local manufacturer when ordering.

In the table below, the products for each manufacturer are listed vertically according to the working conditions which are listed in the left hand column.

When ordering: Packing

- Specify the name of the machine to be applied: Stern tube.
- Specify the type of fluid to be applied: Sea water.
- Specify the type of material : Non asbestos.
- Select CODE: 81 13 02.
- Select a manufacturer from the columns to the below: Beldam Crossley.
- List the type number of the packing from the manufacturer: Pilotpack 5080.
- Specify the size and length in meter per box:
3.0 mm × 15 mtr per box.

Comparison Table of Non-Asbestos Packing Products

Service	Machine	Beldam Crossley (UK)	James Walker (UK)	Vulcan Engineering (UK)	Alligator (The Netherlands)	Drew Marine (U.S.A.)	Garlock (U.S.A.)	Spitmaan (India)	Champion (India)	Pillar (Japan)
Stern Tube										
Sea Water	Stern Tube Rudder Post	Pilotpack 2010 81 13 02 - 12 Pilotpack 5080	Fluolion Sturntite Sextant	VF4 VT2	Marpack PE 031 Marpack PE 044	AMERFLON SG AMERINE 400 AMERINE 2500 AMERPACK 1200	#5413 #98	#2224 #23	#2224 #2224	81 02 21 - 35 #426F 81 03 81 - 95 #6501L
Pump										
Sea Water	Main & Aux. Circulating Pump Cooling Water Pump Bilge Ballast Pump Sanitary Pump Fire Pump General Service Pump	81 13 02 - 12 Pilotpack 5080 Pilotpack 5035 Pilotpack 2010	Liongraf Duracom Fluolion Emulsion 2XA Fluograf	VT2 VK5 VF4	Marpack PE 031 Marpack PE 044	AMERPACK 1200 AMERINE 400 AMERINE 2500	#98 #5200 Pack-master 5	#3 #176 #2224	#36 #176 #2224	81 03 81 - 95 #6501L 81 04 18 - 69 #4526L 81 04 72 - 86 #4536WL
Fresh Water Hot Water	Boiler Feed Pump Boiler Water Circulating Pump	Pilotpack 5020 Pilotpack 5035	Fluograf Supagraf Ribbonpak	VK4 VK5	Marpack PE 025 Marpack PE 031 Marpack PE 044	AMERPACK 1200	#1333-G #98	#174 #176	#36/668 #176	81 04 18 - 69 #4526L 81 05 46 - 54 #6733
	Drain Pump Condensate Pump Auxiliary Machinery Cooling Pump	81 13 02 - 12 Pilotpack 5080 Pilotpack 5035	Supagraf Ribbonpak Fluolion Liongraf	VT2 VK5	Marpack PE 025 Marpack PE 031 Marpack PE 044	AMERINE 400	#98 #1333-G #176	#23 #176	#36/668 #176	81 03 81 - 95 #6501L
Oil	Lubricating Oil Pump Fuel Oil Transfer Pump Fuel Oil Booster Pump Fuel Oil Burning Pump Cargo Oil Pump	81 13 02 - 12 Pilotpack 5080 Pilotpack 3435	Fluograf Fluolion Emulsion 2XA Liongraf Supeta XA	VT2 VP2	Marpack PE 022 Marpack PE 305	AMERPACK 1200	#98 or #88	#23 #36	#3 #36	81 03 81 - 95 #6501L 81 04 72 - 86 #4536WL
Chemical	Chemical Transfer pump	pH 2-13	Pilotpack 4001	Fluolion Filament L Fluograf	VR3	Marpack PE 025 Marpack PE 027 Marpack PE 044 Marpack PE 702	AMERPACK 2400	#78	#668	81 04 72 - 86 #4536WL 81 05 21 - 33 #4527L
		pH 0-14	Pilotpack 3435	Fluolion Filament L Fluograf Liongraf	VP2	Marpack PE 027 Marpack PE 702	AMERINE 1400 AMERFLON 2001	AMERINE 1400 AMERINE 2001	#36	#36
Deck Machine										
Steam	Winch Windlass	Pilotpack 4000	Supagraf Ribbonpak M	VR3	Marpack PE 022 Marpack PE 305	AMERINE 800 AMERPACK 1200	#1303-FEP	#80	#668 (I)	81 13 61 - 75 #6315CH
Valve										
Steam	Saturated Steam Valve	Pilotpack 4000	Supeta XA	VR3	Marpack PE 022 Marpack PE 305	AMERINE 800	#1303-FEP	#80	#668 (I)	81 13 61 - 75 #6315CH
	Superheated Steam Valve	Pilotpack 4000	Supagraf Ribbonpak M	VR3	Marpack PE 022 Marpack PE 305	AMERINE 800	#1303-FEP	#80	#668 (I)	81 05 81 - 91 #6711
Fresh & Sea Water Oil Chemical	Water Valve Fuel Oil Valve Chemical Valve	Pilotpack 7000 Pilotpack 3435	Fluolion Emulsion 2XA, Fluograf, Liongraf Fluolion Filament D	VT5 VP2	Marpack PE 022 Marpack PE 305	AMERINE 800	#1303-FEP	#169 #36	#2300 #36	81 13 61 - 75 #6315CH
LNG · LPG	LNG-LPG Valve	Pilotpack 3408 Pilotpack 4000	Fluolion Filament D	VT9-D VR3	Marpack PE 025 Marpack PE 027 Marpack PE 044 Marpack PE 702	AMERPACK 1200 AMERINE 800 COMBINATION SET	Garlock & 98 Combination set	#2 #80	#1 #668 (I)	81 04 17 #6616CH 81 04 16 #6710CH
Cover										
Gas	Man Holes	Pilotpack 4000	PTFE	VR3	Marpack PE 025 Marpack PE 027 Marpack PE 044 Marpack PE 702	AMERINE 800	#1303-FEP	#80	#668 (I)	81 05 81 - 91 #6711 81 13 45 #6114-M

Packing Product Selection Charts

Object	Application		Principal Materials of Manufacture	Operating Conditions							Beldam Crossley Products		
	Pumps			Shaft Speed m/s		Pressure in Bar			Max. Temp. Deg. C	pH Range			
	Rotary	Recip.		Rotary	Recip.	Rotary	Recip.	Valves					
Water	•	•	•	Flax, Graphite, Lubricants	8	2	20	40	70	120	5- 9	Pilotpack 76	
	•	•	•	Flax, Mica, Lubricants	8	2	20	40	70	120	5- 9	Pilotpack 76	
	•	•	•	Cotton, Lubricants	7	2	25	40	50	120	5- 9	Pilotpack 76	
	•	•	•	Cotton, Graphite, Lubricants	7	2	25	40	50	120	5- 9	Pilotpack 116	
	•	•	•	Flax, PTFE, Lubricants	10	2	20	40	70	120	5- 9	Pilotpack 2010	
Solvents & Chemicals	•	•	•	Spirally wrapped PTFE cord	-	1	-	-	50	280	0-14	Pilotpack 3235	
	•	•	•	PTFE filament yarn, PTFE	2	1	5	150	200	280	0-14	Pilotpack 3408	
	•	•	•	PTFE filament yarn, PTFE, Lubricants	10	2	20	150	200	280	0-14	Pilotpack 3410	
Water	•	•	•	PTFE, PTFE dispersion, Silicone	10	2	20	150	200	280	0-14	Pilotpack 3411	
Solvents & Chemicals	•	•	•	Graphite impregnated PTFE, Lubricants	25	2	25	200	350	290	0-14	Pilotpack 3435	
Water	•	•	•	Aramid, PTFE, Lubricants	20	2	20	200	250	300	2-13	Pilotpack 5020	
Solvents & Chemicals	•	•	•	Ramie Yarn, PTFE Lubricants	11	1	20	70	100	140	2-12	Pilotpack 5020	
Solvents & Chemicals	•	•	•	Aramid, Lubricants ePTFE graphited yarn	25	2	20	250	350	290	1-14	Pilotpack 5035	
	•	•	•	Aramid, Lubricants Filament PTFE graphited yarn	25	2	20	250	350	300	1-14	Pilotpack 5080	
Steam, Gas & Hot Water			•	BCX fibre, Inconel wire, Plastic core	-	1	-	120	170	540	3-14	Pilotpack 8300	
	•	•	•	BCX fibre, Graphite, expanded Lubricants	10	1	10	70	100	400	3-12	Pilotpack 4001	

All Graphite Ribbon Packings for Valves

Empaque de Cinta de Grafito para Válvulas

ピラーフォイルリボンパッキン

石墨帶状閥用盤根

Pillar No. 6650

For high temperature & high pressure valves



Performance:
Temperature -200°C to 400°C

Construction & Features:

Free-size packing of a tape shape made by corrugating both sides of all graphite sheet. It can be wound and formed in the stuffing boxes of any size of valve.

Applications:

For water, steam, oils, oil gas, solvents, heat transfer oil, LNG, strong acids and strong alkalis.

81 01 51	All graphite ribbon packing Pillar No.6650, 0.38 x 12.7 mm x 7.6 mtr	C/L
81 01 52	All graphite ribbon packing Pillar No.6650, 0.38 x 25.4 mm x 15.2 mtr	C/L
81 01 53	All graphite ribbon packing Pillar No.6650, 0.38 x 6.3 mm x 7.6 mtr	C/L

Ramie Fiber Braided Gland Packings for Stern Tube

Empaque de prensastopas de fibra de ramio trenzada para bocinas
船尾管用ラミー繊維グランダパッキング

船舶尾管用苎麻纤维编织填料



Pillar No.426F

Structure and Features:

A gland packing made of braided hemp fibers impregnated with PTFE dispersion and white grease as lubricant.

Applications:

Ideal choice for sealing stern tube (low pressure sea water) and rubber stock. 426F can also be used for sealing rotating

equipments and reciprocating equipments.

Performance:

Temperature to 80°C

Pressure to 0.6 MPaG (6.5 kgf/cm²)

Velocity to 10 m/s

PV to 3.4 MPaG · m/s (35 kgf/cm² · m/s)

Unit Per Box

CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 02 21	3	20 mtr	81 02 29	16	
	5	20		30	17.5
	6.5	20		31	19
	8	3.6		32	20.5
	9.5	3.6		33	22
81 02 26	11		81 02 34	24	
	12.5	3.6 mtr		25.5	
	14.5				3.6 mtr

Carbon Fiber Packings

Empaque de fibra de carbono

炭素繊維パッキン

碳纤维盘根

Pillar No. 6527L

A packing consisting of carbon fiber woven in interlocking braids and processed with a special lubricant.



Feature:

Excellent in heat resistance and chemical resistance and ideal for pumps and agitators

Applications:

Water, hot water, oil, solvent, strong acid, strong alkali, pumps, mixers

Performance:

PH 0 to 14

Temp. 350°C

Pressure 1.6 MPa {16kgf/cm²}

Velocity 10 m/s

PV value 9.8 MPa·m/s {100 kgf/cm²·m/s}

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 05 16	5		81 05 63	16	
81 05 17	6.5		81 05 64	17.5	
81 05 18	8		81 05 96	19	
81 05 19	9.5		81 05 97	20.5	
20	10	3 mtr	98	22	3 mtr
81 05 45	11		81 05 99	24	
61	12.5		81 06 00	25.5	
62	14.5				

Carbonized Synthetic Fiber Braided Versatile Gland Packings for Rotating & Reciprocating Equipments and Valves

Envases de glándulas versátiles trenzados de fibra sintética carbonizada
万能炭化纖維グランドパッキン 万能碳化纤维编织填料

Pillar No. 6501L

An original gland packing made of braided carbonized synthetic fibers impregnated with micro PTFE dispersion and treated with lubricating oil to achieve superior, well-balanced performance in lubricity, flexibility and strength.



Feature:

Become a standard gland packing for the standard pumps due to its high performance such as low abrasion of the stem.

Applications:

Its versatile and high performance has made this gland packing a popular choice for use with many types of rotating equipments as well as reciprocating valves. It is also great for use with stern tubes and rudder stocks.

Performance:

Temperature	to 200°C (Over 80°C, external cooling required)
Pressure	to 1.0 MPaG (10 kgf/cm²)
Velocity	to 20 m/s
PV	to 9.8 MPaG · m/s (100 kgf/cm² · m/s).

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 03 81	3		81 03 88	14.5	
82	5		89	16	
83	6.5	3 mtr	90	17.5	3 mtr
84	8		91	19	
85	9.5		92	20.5	
96	10		93	22	
81 03 86	11	3 mtr	81 03 94	24	3 mtr
87	12.5		95	25.5	

Carbonized Fiber Braided Versatile Gland Packings for Rotating & Reciprocating Equipments and Valves

Empaquetadura versátil trenzada de fibra carbonizada
炭化纖維パッキン 碳化纤维盘根



Pillar No. 6521L

A packing made of carbonized fiber which is impregnated with the PTFE resin liquid and interlocking braided into square and then impregnated with a special lubricant after.

Feature:

A sister product of Style 6501L, has further been improved in its pressure-proof property and has characteristics that its sealing property is less influenced by pressure fluctuation of

pump and it is stable when used for a large-sized shaft.

Applications:

Water, hot water, oil, solvent, weak acid, weak alkali, pumps, mixers, sterntubes.

Performance:

Temperature	200°C
Pressure	1.2 MPa {12.5 kgf/cm²}
Velocity	20 m/s
PV value	9.8 MPa · m/s {100 kgf/cm² · m/s}

Unit Per Box					
CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 03 97	5		81 04 91	16	
81 03 98	6.5		81 04 92	17.5	
81 03 99	8		81 04 93	19	
81 04 00	9.5		81 04 94	20.5	
87	10	3 mtr	95	22	3 mtr
81 04 88	11		81 04 96	24	
89	12.5		97	25.5	
90	14.5				

PTFE Fiber Braided Gland Packings

Empaquetaduras de prensaestopas trenzadas de fibra de PTFE
PTFE 織維編組グランドパッキン PTFE 纤维编织盘根

Pillar No. 4505L

Structure & Features:

A Square-braided packing consisting of PTFE (Polytetrafluoroethylene resin) fiber impregnated with PTFE dispersion and lubricant. It has good so solvent and chemical resistance.



Applications:

Solvents, strong acid, strong alkali, pumps, valves, mixers.

Performance:

pH	0 to 14
Temperature	-100 to 260°C (Over 80°C, external cooling required)
Pressure	to 1.0 MPaG (10 kgf/cm²). (in pumps) to 10.3 MPaG(106 kgf/cm²). (in valves)
Velocity	to 10 m/s
PV	to 4.9 MPaG · m/s (50 kgf/cm² · m/s)

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 04 01	3		81 04 06	11	
02	5		07	12.5	
03	6.5	3 mtr	08	14.5	3 mtr
04	8		09	16	
05	9.5		11	19	

Carbonized Fiber Braided Versatile Gland Packings

Mark III Combi for High Temperature & Pressure Valves

Empaquetadura Trenzada Pillarfoil

ピラーフォイル編組パッキン 柱形箔编织盘根



Pillar No.6710CH

A Pillarfoil packing braid over braid, reinforced by NCF600 wire. Suitable used for adapter packings to combine with Pillar style 6616CH. When ordering, please specify outer dia size, inner dia size and height of the packing due to make to order.

Performance:

Temperature	-200 to 600°C (Maximum temperature in oxidizing atmosphere : 450°C)
Pressure	77.6 MPa {791 kgf/cm²} (ASME class 4500)

Application:

Water, Steam, Oil, Heat transfer oil, Solvent, Gas, Acid, Alkali, High pressure valves, Heat transfer oil valves, High pressure gas valves.

How to order: 81 - 04 - 16

Pillarfoil braided packing, Mark III Combi, Pillar style 6710CH, OUTER DIA, INNER DIA, HEIGHT in mm

Pillarfoil Packings**for High Pressure & High Temperature & Pressure Valves**

Empaquetaduras de Pilar para válvulas de alta presión y alta temperatura y presión

高压・高温・高圧バルブ用ピラーフォイル成型パッキン

用于高压和高温高压阀门 柱式盘根

**Pillar No.6616CH**

This is pure graphite wire mesh inserted, one cut type, high performance packing. Use style 6616CH in combination with style 6710CH.

Performance:

Temperature -200 to 600° (Maximum temperature in oxidizing atmosphere : 450°C)

Pressure 77.6 MPa {791 kgf/cm²} Class 4500

Application:

High pressure & High temperature valves, LNG valves

How to order: 81 - 04 - 17

Pillarfoil packing, Pillar No. 6616CH, OUTER DIA, INNER DIA, HEIGHT in mm

High-Intensity Aramid Fiber Braided Gland Packings**for Slurry Pump**

Empaquetadura de prensaestopas de fibra de aramida trenzada de alta intensidad para bombas de mezcla

高強度アラミド繊維グランドパッキン 高强度芳纶纤维编织填料

**Pillar No. 4526L****Structure:**

A braided packing made of highly resistant aramid fibers treated with PTFE dispersion and lubricant.

Feature:

The packing stay flexible thanks to the original interlocked braiding technology.

Applications:

An ideal choice for applications that require packings made of strong fibers, such as slurry pumps.

Performance:

Temperature to 260°C

(Over 80°C, external cooling required)

Pressure

to 1.6 MPaG (16 kgf/cm²) (in pump)

to 10.3 MPaG (106 kgf/cm²) (in valve)

Velocity

to 16 m/s

PV

to 14.7 MPaG · m/s (150 kgf/cm² · m/s)

Unit Per Box

CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 04 18	3.0		81 04 54	14.5	
19	5.0		55	16.0	
20	6.5	3 mtr	56	17.5	
58	8.0		57	19.0	
51	9.5		60	20.5	
81 04 59	10.0		81 04 68	22.0	
52	11.0	3 mtr	69	25.5	
53	12.5				3 mtr

Aramid Fiber Braided White Gland Packings**for Rotating Equipment**

Empaquetadura de prensaestopas blanca de fibra de aramida trenzada para equipo giratorio

回転機器用アラミド繊維ホワイトパッキン

旋转设备用芳纶纤维白色编织填料

**Pillar No. 4536WL****Structure:**

A white gland packing made of aramid-fiber-covered yarn. It is treated with special lubricant and PTFE to ensure good lubricity.

Feature: It has outstanding flexibility and sealing properties.

Applications:

For rotating equipments that require white packings.

Performance:

Temperature to 260°C

(Over 80°C, external cooling required)

Pressure to 1.0 MPaG (10 kgf/cm²)

Velocity to 10 m/s

PV to 6.5 MPaG · m/s (150 kgf/cm² · m/s)

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 04 72	5.0		81 04 80	16.0	
73	6.5		81	17.5	
74	8.0	3 mtr	82	19.0	3 mtr
75	9.5		83	20.5	
76	10.0		84	22.0	
81 04 77	11.0		81 04 85	24.0	
78	12.5	3 mtr	86	25.5	3 mtr
79	14.5				

Particular-processed PTFE Fiber Braided Gland Packings**for Chemical Pumps**

Empaquetadura de prensaestopas de fibra de PTFE trenzada tratada con partículas para bombas de productos químicos

特殊加工PTFE 織維グランドパッキン 特殊加工PTFE 纤维编织填料

**Pillar No. 4527L****Structure:**

A packing consisting of the PTFE fiber, and containing highly pure graphite and a special lubricant woven into interlocked braids.

Features:

Achieved high sealing performance and chemical resistance by the flexibility obtained from interlocked braiding technology.

Applications:

Recommended for use with chemical transfer pumps.

Performance :

pH 0 to 14

Temperature -100°C to 260°C

(Over 80°C, external cooling required)

Pressure to 1.2 MPaG (12.5 kgf/cm²)

Velocity to 20 m/s

PV to 12.3 MPaG · m/s (125 kgf/cm² · m/s)

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 05 21	5.0		81 05 28	14.5	
22	6.5		29	16.0	
23	8.0	3 mtr	30	17.5	3 mtr
24	9.5		31	19.0	
25	10.0		32	20.5	
81 05 26	11.0	3 mtr	81 05 33	22.0	3 mtr
27	12.5				

Non-Asbestos Braided Packings for Low-Torque Adjusting Valves

Empaque de fibra de carbón y teflón para válvulas de bajo par-torsión

ノンアスベスト編組パッキン調整弁用
用于低扭矩调节阀 无石棉编织填料



Pillar No. 4519

PTFE fiber covers the inner core which is made of spun carbon fiber threads. This packing is a combination of the excellent features of PTFE in chemical resistance and the heat resistance and elasticity of carbon fiber. The low friction surface of this fiber makes it suitable particularly for adjusting valves in which smooth revolution of the valve rod is especially important.

Performance:

pH	0 to 14
Temperature	260°C
Pressure	Class 600
Fluid	Oil solvent, acid, alkali.

Applications:

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 05 37	5.0		81 05 41	11	
38	6.5	3 mtr	42	12.5	
39	8.0		43	14.5	3 mtr
40	9.5		44	16	

Braided Gland Packings

for High Temp. Pump

Empaque de prensastopas trenzada para bombas de alta temperatura
高温ポンプ用グランドパッキン 高温泵用编织填料



Pillar No. 6733

Structure:

A gland packing made of braided aramid-fibre-reinforced braided expanded graphite yarn.

Features and Applications:

Treated with highly thermally resistant lubricant and is great for use with high-temperature high-pressure pumps, such as boiler feed pumps and boiler circulation pumps.

Performance:

Temperature	to 350°C
Pressure	to 2.0 MPaG (20 kgf/cm²)
Velocity	to 20 m/s
PV	to 19.6 MPaG · m/s (200 kgf/cm² · m/s)

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 05 46	3		81 05 50	9.5	
47	5	3 mtr	51	11	
48	6.5		52	12.5	3 mtr
49	8		54	16	

Braided Gland Packings

for High Temperature and High Pressure Valves

Empaque de prensastopas trenzada para válvulas de alta temperatura y alta presión

高温・高圧バルブ用グランドパッキン 高温高压阀用编织填料



Pillar No. 6711

Structure:

A graphite packing made of braided expanded graphite yarn reinforced with NCF600 wire with its surface being coated with graphite powder.

Features:

Can be used without top and bottom adaptor packing.

Application:

It is suitable for high-temperature and high pressure valves.

Performance :

Temperature	-200 to 600°C (at oxygen atmosphere limited to 450°C)
Pressure	to 25.9 MPaG (264 kgf/cm²) (Class 1500)

Unit Per Box

CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 05 81	3.0		81 05 86	11.0	
82	5.0		87	12.5	
83	6.5	3 mtr	88	14.5	
84	8.0		89	16.0	3 mtr
85	9.5		91	19.0	

Pilotpack 76 Packings

for Sea and Fresh Water

Empaque para Agua Salada y Agua Dulce

海水・淡水用パイロットパック 76 パッキング

用于海水和淡水 Pilotpack 76 包装



Beldam Pilotpack 76

Plaited from high grade flax blended with other natural fibres carefully selected to provide a high wet strength when in contact with sea water thereby ensuring a long packing life. Each strand is thoroughly impregnated with a special water resistant mica lubricant before plaiting.

Performance:

Max. Temperature 120°C

Pressure 70 bar

pH 5 - 9

Speed 8 m/s

Applications:

Reciprocating, rotary and static, Stern glands and in smaller sizes general purpose water packing.

How to order: CODE

Pilotpack 76 packing, Beldam Crossley SIZE mm x LENGTH mtr

Unit Per Box

CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 07 01	3.0		81 07 07	12.5	
02	5.0		08	14.5	
03	6.5	15 mtr	09	16.0	
04	8.0		81 07 10	19.0	
81 07 05	9.5	10 mtr	11	22.0	5 mtr
06	11.0		12	25.0	

All-purpose Grand Packings

Threebond No.5910

Empaque multi-usos, 万能グランドパッキン 万用盘更

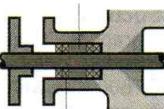
Preformed in triangle shape for easy installation and can be fitted into any size or any shape of stuffing box due to self expansion performance by built-in air bubbles.

Performance :

Temperature -200 to 300°C
 Pressure 1,400 kg/cm²
 Fluid Oxalic acid, Alkali,
 Alcohol, Organic solvent



No.5910



Old Grand Packing

81 07 15

Grand packing, all-purpose Threebond
No.5910, 1 kg/box

Box

Tank Lid Packings**Pilot Lidpack 3800**

Empaqueadura para tapa de tanque Pilot
 タンクリッドパッキン 液货船盖填料

**Constructions:**

Specially developed to seal marine cargo tank lids. The PTFE outer cover gives complete protection to the packing and is abrasion resistant. The unique core construction enables the packing to be welded together to form an endless seal, thus preventing the chance of any leakage at the joint.

Performance:

Max. Temperature 100°C
 Pressure 1 Bar
 pH 1 to 14.

Applications:

For static cargo or chemical tanks, and acids, alkalis, oils, solvents, chemicals and edible products.

In coils or cut to size upon request. Also available in square or rectangular sections as required.

Unit Per Mtr.

Square Section		Rectangular Section	
CODE	Size mm	CODE	Size mm
81 07 21	20 x 20	81 07 26	20 x 15
22	25 x 25	27	30 x 20
23	35 x 35	28	35 x 25
24	38 x 38	29	40 x 30
25	40 x 40		

Endless welded rings ready for fitting.

81 07 30

Tank lid packing, Pilot Lidpack 3800,
endless welded ring, SECTIONAL
SIZE, INNER DIAM, OUTER DIAM

Pc.

Tankatite 440

Constructed from a resilient elastomeric core spirally wrapped with P.T.F.E. tape for added chemical protection. The core is then surrounded with successive braided jackets of inert polypropylene which is wrapped with further layers of P.T.F.E. tape and finally enclosed in braid of P.T.F.E. yarns. Tankatite 440 provides a reliable seal for tank lids, main hatches, and cleaning covers on tankers carrying all known bulk liquid cargoes in all IMO classes.

It will protect the cargo from sea-water ingress and prevent any environmental contamination by the cargo itself.

Tankatite 440 meets U.S. Coast Guard requirements for tank lid sealing of hazardous cargoes and is pressure tight beyond Lloyds and Det Norske Veritas (DNV) test criteria. Any reasonable length can be supplied in square or rectangular from 12.5 mm upwards, or can be supplied in factory produced endless ring form to exactly fit the tank lid recess.

Unit Per Mtr.

Square Section		Rectangular Section	
CODE	Size mm	CODE	Size mm
81 07 31	25 x 25	81 07 35	20 x 15
32	30 x 30	36	30 x 20
33	38 x 38	37	40 x 25
34	40 x 40	38	40 x 30

Non-Asbestos Universal Packings**Pilotpack 5080**

Empaqueadura sin Amianto Universal

ノンアスベスト・ユニバーサルパッキン

非石棉统一填料

A firm compression packing of the crossplait type designed for effective sealing over a wide scope of static or dynamic applications. The packing is a composite of two base fibres that provide good heat dissipation, abrasion resistance, with the ability to withstand high pressures. The packing also possesses a surface lubricant for initial bedding-in purposes that aids longer term performance.

**Performance:**

Max. Temperature 300
 Pressure Up to 350 bar
 pH 1 - 14
 Speed Up to 25 m/s

Applications:

Pumps and valves, Condensates, Dilute acids and alkalis, Oils, Solvents, Abrasive Media, Steam and water.

How to order: CODE

Pilotpack packing, Beldam Crossley No.5080, SIZE mm x LENGTH mtr

Unit Per Box

CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 13 02	5.0	15 mtr	81 13 07	12.5	10 mtr
	6.5			14.5	
	8.0			16.0	
81 13 05	9.5	10 mtr	81 13 10	19.0	5 mtr
	11.0			22.0	
				25.0	

Pilotgraph 4001 Packings**for Oils, Hot Water and Steam**

Pilotgraph 4001 Empaqueaduras

パイロットグラフ 4001 パッキン Pilotgraph 4001 填料

Exfoliated graphite packing

**Performance:**

Max. Temperature -200 tp 3,000°C
 Steam 650°C
 Pressure 300 bar
 pH 0 - 14
 Speed 25 m/s

Applications:

Rotary, reciprocating and static. Saturated steam, hot water, hot air and gases. Piston rods and valves rods. Ballast, bilge and cargo feed pumps.

How to order: CODE

Pilotgraph packing, Beldam Crossley No. 4001, SIZE mm x LENGTH mtr

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 13 21	3.0	15 mtr	81 13 27	12.5	
22	5.0		28	14.5	10 mtr
23	6.5		29	16.0	
24	8.0		81 13 30	19.0	
81 13 25	9.5	10 mtr	31	22.0	5 mtr
26	11.0		32	25.0	

Pillarfoil Braided Packings (Mark VII) for manhole Cover

Empaqueadas trenzadas Pillarfoil

ピラーフォイル編組パッキン 柱形箔編織盤根



Pillar No. 6114-M

This is made of flexible graphite yarn reinforced by organic fiber and braided. This flexible graphite material is pretreated on its surface to obtain low torque properties as well as sealability.

Performance:

Temperature 400°C

Fluid Hot air, exhaust gas, dust.

Applications: For manhole packing

How to order: 81 - 13 - 45

Pillarfoil braided packing, (Mark VII), Pillar No. 6114-M,

SIZE mm x LENGTH mtr

Low Friction Type Braided Gland Packings

for High Temperature & High Pressure Valve

Empaqueadura de prensaestopas trenzada de baja fricción para válvulas de alta temperatura y alta presión

低トルクタイプ高温・高圧バルブ用グラントドパッキン

低转矩型高温高压阀用编织填料



Pillar No. 6315CH

Structure:

A gland packing made of braided expanded graphite yarn reinforced with stainless wire.

Features:

Its surface is coated with lubricant and graphite powder to minimize the sliding resistance of the valve stem.

Applications:

Suitable for use with high-temperature and pressure valves.

Performance:

Temperature -200 to 600°C

(at oxygen atmosphere limited to 450°C)

Pressure to 25.9 MPaG (264 kgf/cm²)

ANSI Class 1500

Unit Per Box					
CODE	Size mm	Length Per Box	CODE	Size mm	Length Per Box
81 13 61	3.0	3 mtr	81 13 69	16.0	
	5.0		70	17.5	
	6.5		71	19.0	3 mtr
	8.0		72	20.5	
	9.5		73	22.0	
81 13 66	11.0	3 mtr	81 13 74	24.0	
	12.5		75	25.5	3 mtr
	14.5				

Grafan Fibre & Inconel Wire Packings

Vulcan VR31

Empaqueadura de fibra Grafan y alambre Inconel
インコネルワイヤー補強グラファン繊維パッキン
Grafan 纤维铬镍铁合金填料



Braided packings constructed from 100% Grafan yarns to form truly exceptional capability and performance. It is additional reinforced with inconel wire to create the packing for high temperature, high pressure valves. Can be merely cut to length and spiraled into the gland. Extreme condition, long life and zero leakage packing for all uses up to high temperature, high pressure, high speed applications on pumps, valves, mixers, agitators, expansion joints, ball valve seats and other static seals. It is designed for use in static applications only. Against all acids, alkalis and solvents (except very strong oxidizers), gases, feed water and superheated, or saturated, steam.

Service Capability

Pressure rating: 360 Bar Rotary speed: 1 m/s

Temperature: -200 + 3,000 deg.C (Inert ATM)

Temperature: -200 + 600 deg.C (In air)

pH range: 0-14

Unit Per C/L			
CODE	Size mm x mtr	CODE	Size mm x mtr
81 51 01	3 mm x 3 mtr	81 51 05	10 mm x 3 mtr
02	5 mm x 3 mtr	06	11 mm x 3 mtr
03	7 mm x 3 mtr	07	13 mm x 3 mtr
04	8 mm x 3 mtr	08	14 mm x 3 mtr

Name of Mfr.: Vulcan Engineering

PTFE Graphite Fibre Packings

Vulcan VP2

Guarnición de fibra de grafito PTFE

PTFE 黒鉛織維パッキン PTFE 碳纤维保护套



Manufactured from 100% Vulcan type G1 fibre. This newly developed outstanding yarn is very similar in material construction to the original GORE GFO fibre and has been manufactured to optimise performance at an improved cost. They will increase service life whilst minimizing wear and gland adjustments, against nearly all media in static, rotary and reciprocating uses.

Service Capability

Pressure rating: 120 Bar Rotary speed: 25 m/s

Temperature: -200 + 280°C pH range: 0 - 14

Unit Per C/L			
CODE	Size mm x mtr	CODE	Size mm x mtr
81 51 11	3 mm x 3 mtr	81 51 15	10 mm x 3 mtr
12	5 mm x 3 mtr	16	11 mm x 3 mtr
13	7 mm x 3 mtr	17	13 mm x 3 mtr
14	8 mm x 3 mtr	18	14 mm x 3 mtr

Name of Mfr.: Vulcan Engineering

Non-Asbestos Gland Packings

Carbon Fiber Based

Empaqueadura de casquillo sin amianto con base de fibra de carbono

炭素繊維系グランドパッキン 碳纤维密封填料



For Water & Oil Pumps Valqua® No. 6201

Coil packing made of carbonized fabric yarn, processed with PTFE dispersion and lubricating oil, then braided into a square cross-section and finished with PTFE, fine graphite and lubricating oil.

Features:

- Serviceable for relatively versatile fluids.
- Allows permissible PV value and shaft speed limit.
- Reduced shaft wear due to packing.

Temperature	Pressure	pH	Speed
200°C / 392°F	1 MPa	2 to 12	20 m/s

Unit Per Box

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 54 01	3.0	3	81 54 09	11	
	4.0			10	12.5
	5.0			11	14.5
	6.0			12	16
	6.5			13	19
81 54 06	8.0	3	81 54 14	20	
	9.5			15	22
	10.0			16	25

For General Use Valves & Reciprocating Motion Machines
Valqua® No. 6232

Coil packing made of carbon fiber yarns, processed with PTFE dispersion and lubricating oil, then braided into a square-cross section and finished with PTFE, fine graphite and lubricating oil.

**Features:**

- Good compatibility with shafts means excellent sealing property even at low tightening pressures.
- Suitable for almost all fluids except for strong oxidizing fluids.

Temperature	Pressure	pH
260°C / 500°F	10.3 MPa	0 to 14

Unit Per Box

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 54 21	3	3	81 54 29	12.5	
	4			30	14.5
	5			31	16
	6.5			32	19
	8			33	20
81 54 26	9.5	3	81 54 34	22	
	10			35	25
	11				

For Chemical Pumps
Valqua® No. 6262

Coil packing made of carbon fiber yarns, processed with PTFE dispersion and lubricating oil, then braided into a square cross-section and finished with PTFE, fine graphite and lubricating oil.

Features:

- Allows permissible PV value and shaft speed limit.
- Reduced shaft wear due to packing.
- Suitable for almost all fluids except for strong oxidizing fluids.

Temperature	Pressure	pH	Speed
260°C / 500°F	1.6 MPa	0 to 14	20 m/s

Unit Per Box

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 54 41	3	3	81 54 49	11	
	4			50	12.5
	5			51	14.5
	6			52	16
	6.5			53	19
81 54 46	8	3	81 54 54	20	
	9.5			55	22
	10			56	25

Shaft Seal Gland Packings

Empaque de casquillo de obturador de ejes

軸封グランドパッキン

軸封密封填料

PTFE Fiber Based

A base de fibra de PTFE PTFE 系グランドパッキン

轴密封压盖填料 PTFE 纤维基

For Corrosive Fluid Valves

VALQUA® No. 7233

Coil packing made of PTFE fiber yarns, processed with PTFE dispersion, then braided into a square cross-section.

Features:

- Made of 100% PTFE, and therefore resistant to almost all fluids. Best suited for chemical use valve shaft seals for handling corrosive fluids.
- When low torque or gas sealing properties are required, use the following products which are treated with lubricating oil:
 - No. 7233 (O) for general gas-based fluids.
 - No. 7233 (SO) for low-temperature use of inflammable gas and liquefied gas.
 - No. 7233 (FO) for gas susceptible to burning, such as oxygen and ozone.
- Compliant with the Food Sanitation Law, and the Regulations concerning Food & Additives.

Temperature	Pressure	pH
260°C / 500°F	10.3 MPa	0 to 14

Unit Per Box

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 54 61	3	3	81 54 69	12.5	
	4			70	14.5
	5			71	16
	6.5			72	19
	8			73	20
81 54 66	9.5	3	81 54 74	22	
	10			75	25
	11				

Special Fiber Based

A base de Fibras Especiales

特殊纖維系グランドパッキン 特殊纤维



For Low & Medium Shaft Speed Pumps and Rotary Equipment

Valqua® No. 8132

Coil packing made of blended yarn of aramid fibers and of artificial inorganic fibers treated with PTFE dispersion, braided into a square cross section, and then finished soft with PTFE dispersion and lubricating oil.

Features:

- Flexible and compatible with shafts.
- Being white, can be used for fluid applications where black should be avoided.
- Can be used as shaft seals of pumps for handling water-based and oil-based fluids as well as weak acid and weak alkaline fluids.
- Also used as shaft seals for rotating machines where contamination is undesirable, such as mixers and agitators.

Temperature	Pressure	pH	Speed		
260°C / 500°F	1.0 MPa	2 to 13	10 m/s		
Unit Per Box					
CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 54 81	3		81 54 89	11	
82	4		90	12.5	
83	5	3	91	14.5	3
84	6		92	16	
85	6.5		93	19	
81 54 86	8		81 54 94	20	
87	9.5	3	95	22	3
88	10		96	25	

For rotating machines Valqua® No. 8137

Coil packing made of blended yarn of aramid fibers and of artificial inorganic fibers treated with PTFE dispersion, braided into a square cross-section, then finished with PTFE dispersion.



Features:

- White clean packing without lubricating oil.
- Excellent cost per performance.
- Can be widely used for general-use valves as well as for shaft seals of agitators and plunger pumps.

Temperature	Pressure	pH	Speed		
260°C / 500°F	14.7 MPa	2 to 13	1 m/s		
Unit Per Box					
CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 55 01	3 ⁽¹⁾		81 55 09	12.5	
02	4		10	14.5	
03	5	3	11	16	3
04	6.5		12	19	
05	8		13	20	
81 55 06	9.5		81 55 14	22	
07	10	3	15	25	3
08	11				

Note⁽¹⁾ For manufacturing reasons, rectangular products with a cross section of 3 mm x 5 mm are available.

Flexible Graphite Based

Base de grafito flexible 膨張黒鉛系グランドパッキン 柔性石墨基

For General Use Valves

Valqua® No. VFT-22

Coil packing made of expanded graphite yarn clad with PTFE film, and braided into a square cross-section, that is, gland packing that makes use of the features of each material.



Features:

- Excellent in sealing property and durability with expanded graphite as the major material.
- Low stem friction as the surface is clad with PTFE.

Temperature	Pressure	pH
300°C / 572°F	10.3 MPa	0 to 14

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 55 21	3		81 55 29	12.5	
22	4		30	14.5	
23	5	3	31	16	
24	6.5		32	19	
25	8		33	20	
81 55 26	9.5		81 55 34	22	
27	10	3	35	25	3
28	11				

For High Temperature & High Pressure Valves Valqua® No. VFX-15

A coil packing made of expanded graphite yarns reinforced with metal wire, braided into a square cross-section treated with lubricant oil.



Features:

- Can be used individually as a stem seal.
- Higher cost performance than existing graphite packing.

CODE	Size (mm)	Length (m)	CODE	Size (mm)	Length (m)
81 55 41	3		81 55 47	12.5	
42	5		48	14.5	
43	6.5	3	49	16	
44	8		50	19	
45	9.5		51	22	
81 55 46	11	3	81 55 52	25	3

Comparison Table of Gaskets

Products from a few manufacturers are listed below for your reference. If there is some question as to what types of products are most suitable for the condition of use, please ask for further information or brochures from the local manufacturer when ordering.

In the table, the products for each manufacturer are listed vertically according to the working conditions which are listed in the left hand column.

When ordering: Gasket

1. Select the purpose: All purpose.
2. Specify the name of the machine to be applied: Pump, valve, etc
3. Specify the type of material: Non-asbestos.
4. Select the CODE: 81 11 00.
5. Select a manufacturer from (one of) the columns to the right: Beldam Crossley.
6. List the type number of the gasket from the manufacturer: Pilotseal 178.
7. Specify the thickness and size (Width x Length) in mm. 1.0 mm x 1,500 x 1,500 mm.

Comparison Table of Non-Asbestos Gaskets

Purpose	CODE	Beldam Crossley (UK)	James Walker (UK)	Alligator (The Netherlands)	Drew Marine (U.S.A.)	Garlock (U.S.A.)	Spitmaan (India)	Champion (India)	Pillar (Japan)
All Purpose	81 11 00 Non-asbestos	81 12 91-96 Pilotseal 178, Pilotseal 34	Inca, Centurion, Sentinel	Marpack PA 245, Marpack PA 250, Marpack PA 276, Marpack PA 277	Amerine CF, Amerine S	#3400 (#3000 for water, air, lube oil system), #9850, #9800	AF 170, AF 139	AF139	81 11 24-29 #5650 81 11 44-59 #5600
Steam	81 11 10 Non-asbestos	Pilotseal 34, "Ibex 162" Spiral Wound Gaskets	Chieftain, Centurion, Metaflex Gaskets	Marpack PA 231, Marpack PA 256	Amerine CF, Amerine S	#3400, #9900 (Not recommended for superheated steam)	Spiral Wound	Spiral Wound AF154	#2603-EEE
Exhaust Gas	81 11 30 Non-asbestos	Pilotseal 34, Pilotseal 2T	Chieftain, Supagraf N7, Super Twilstele XA	Marpack PA 256	Amerine CFR, Milam mica sheet	HTC 9850, #9900, Graphlock 3200, Graphlock 3400	AF 170 (Non Metallic / Metallic)	AF154	81 10 25-29 #6633
Feed Water, Boiler water, Blow off, Drain	81 11 50 Non-asbestos	81 12 91-96 Pilotseal 178	Chieftain, Sentinel, Inca, Centurion	Marpack PA 245, Marpack PA 250, Marpack PA 276, Marpack PA 277	Amerine CF, Amerine S	#3300, Graphlock #3400	AF 154	AF139	#2603-EEE
Compressed Air	81 11 60 Non-asbestos	Pilotseal 34, 81 12 91-96 Pilotseal 178	Inca Centurion, Sentinel, Chieftain	Marpack PA 245, Marpack PA 250	Amerine CF, Amerine S	#3300	AF 159, AF 139	AF139	#5001, 81 13 55-58 #5003-NBR
Fresh Water, Condensate Water, Seawater. Bilge, and Ballast	81 11 70 Non-asbestos	81 12 91-96 Pilotseal 178	Rubber Insertion 332C, Inca, Sentinel, Centurion, Chieftain	Marpack PA 245, Marpack PA 250, Marpack PA 276, Marpack PA 277	Amerine CFR, Amerine S	#3300, #9850, #3400, #9900	AF 111, AF 120	AF154	81 10 25-29 #6633 81 10 71-76 #5611 81 11 24-29 #5650, #5600 #5001, #5002 #5003-NBR
Fuel Oil, Cargo Oil, Lubricating Oil	81 11 80 Non-asbestos	81 12 91-96 Pilotseal 178	Gaskoid, Inca, Sentinel	Marpack PA 090, Marpack PA 245, Marpack PA 250, Marpack PA 276, Marpack PA 277	Amerine CF, Amerine S	#3000, #9850	AF 159	AF159	81 10 25-29 #6633 81 10 71-76 #5611 81 11 24-29 #5650, #5600 #5001, #5002 #5003-NBR
Chemical	81 11 90 Non-asbestos	Pilotseal 550, PTFE Gaskets	PTFE Sheet Steel Lined PTFE Gaskets, Chieftain	Marpack PO 473, Marpack PO 500, Marpack PO 665, Marpack PO 808, Marpack PO 850, Marpack PO 860	PTFE Sheet	#3000 (Suited for mild solvent and aliphatic hydrocarbons), #3510, #3504, #3565, #3535 Joint Sealant	AF 120, AF 154, AF 160	PTFE Gaskets	#4430AF #4400

Graphite Joint Sheet Gaskets

Plancha gratificada para juntas

黒鉛ジョイントシートガスケット 石墨结合垫片

Pillar No. 5650

A joint sheet gasket made of graphite black lead and aramid fiber bound with a rubber binder.



Feature:

1. Highly thermally resistant.
2. High mechanical strength.
3. Non-adhesive to flange surfaces.
4. Great workability.

Applications:

Gaskets for pipe flanges, maintenance hatches, and valve bonnets. Especially suitable for use with pipes that carry saturated vapors.

Performance:

Temperature -100 to 260°C

Pressure up to 5.2 MPaG (ASME Class 300)

Unit Per Sh.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 11 24 25	0.5 0.8	1,500 × 1,500 1,500 × 1,500	81 11 26 27 28 29	1.0 1.5 2.0 3.0	1,500 × 2,000

Expanded Graphite Joint Sheet Gaskets

Plancha para juntas de estanqueidad de grafito expandido

膨脹黒鉛ジョイントシートガスケット 膨脹石墨密封垫圈

Pillar No. 5600

Structure:

A joint sheet gasket made of expanded graphite, inorganic-fiber and aramid fiber bound with a rubber binder.

Feature:

1. Very flexible.



2. Highly thermally resistant.
3. Great gas-sealing performance.
4. Roll-upable for compact storage.

Applications:

Gaskets for pipe flanges, maintenance hatches, and valve bonnets. Especially suitable for use with pipes that carry saturated vapors.

Performance:

Temperature -50 to 260°C
Pressure up to 4.0 MPaG

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 10 07	0.5		81 10 39	0.5	
08	0.8		58	0.8	
09	1.0	1,270 × 1,270	59	1.0	1,270 × 3,810
22	1.5		69	1.5	
23	2.0		77	2.0	
81 10 38	3.0	1,270 × 1,270	81 10 78	3.0	1,270 × 3,810

Tear Resistant Type Graphite Sheet Gaskets

for High Temperature Sheet Gasket

Plancha gratificada resistente a desgarros para planchas de altas temperaturas

金属箔入り膨張黒鉛シートガスケット

含金属箔の抗撕裂型膨胀石墨垫片

Pillar No. 6633

Structure:

An expanded graphite sheet gasket reinforced with stainless steel foil to protect against tearing and improve ease of handling.



Features:

1. Extremely thermally resistant.
2. Tear resistant.
3. Easily cut with a knife or scissors.
4. Highly chemically resistant.

Applications:

Suitable for use with pipe flanges and other types of applications that require gaskets with thermal resistance and anti-chemical properties.

Performance:

Temperature -200 to 400°C
Pressure up to 5.2 MPaG

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 10 25	0.5		81 10 27	1.5	
24	0.8	1,000 × 1,000	28	2.0	1,000 × 1,000
26	1.0		29	3.0	

Joint Sheet Gaskets

(Common Used)

Plancha para juntas (uso común)

汎用ジョイントシート 通用结合垫片

Pillar No. 5611

Structure:

A joint sheet gasket made of inorganic fiber and aramid fiber bound with a rubber binder.



Features:

1. High mechanical strength.
2. Superior fit with flange surfaces that ensures high sealing performance.
3. Great workability.

Applications:

Gasket for pipe flanges, maintenance hatches, and valve bonnets. Especially suitable for use with pipes that carry room-temperature water or oil.

Performance:

Temperature -50 to 120°C
Pressure up to 3.3 MPaG

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 10 71	0.5		81 10 40	0.5	
72	0.8		45	0.8	
73	1.0	1,270 × 1,270	46	1.0	1,270 × 3,810
74	1.5		47	1.5	
75	2.0		48	2.0	
81 10 76	3.0	1,270 × 1,270	81 10 49	3.0	1,270 × 3,810

Vegetable Fiber Oil-Proof Joint Sheets

Plancha de Fibra Vegetal Resistente al Aceite para Juntas

植物纖維耐油ジョイントシート 蔬菜纤维制防油结合垫片

Construction & Features:

Made of chemically treated vegetable fiber. For packing against gasoline, oil, water, and lubricating oil.

Performance:

Temperature 100°C
Pressure 1.0 MPa (10 kgf/cm²)

Applications:

Gasket for oil pumps, crank cases, transmission covers, gasoline pumps, oil drums, etc.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 10 79	0.1		81 10 84	0.8	
81	0.3		85	1.0	
82	0.4	1,000 × 1,000	86	1.6	1,000 × 1,000
83	0.6		88	3.0	

Fiber Joint Sheets

Plancha de Fibra para Juntas 纤维ジョイントシート 纤维接缝板

Construction & Features:

A red paper packing sheet which is chemically neutralized from cotton fiber and treated with zinc chloride solvents.

Applications:

Flange packing for water and oil service or electrical insulation.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 10 91	0.35		81 10 95	1.6	
92	0.5		96	2.4	
93	0.8	910 × 1,220	97	3.2	910 × 1,220
94	1.0				

Cortex Joint Sheets

Plancha Goma-Corcho para Juntas コルクシート 皮质接缝片

Construction & Features:

Made of cork skin and mixed with oil resistant rubber by rolling and curing.

Applications:

Pipe flange packing for tank covers, etc.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 11 01	1.0	915 × 1,830	81 11 03	2.0	
02	1.5		04	3.0	915 × 1,830

Natural Rubber Joint Sheets

Plancha Goma Natural para Juntas 天然ラバーシート 天然橡胶接缝板

Applications:

For pipe flanges or cover gaskets where gas, hot or cold water, diluted solutions, low pressures, and service steam are used.



Unit Per Mtr.

CODE	Thick mm	Sheet Size mm	CODE	Thick mm	Sheet Size mm
81 11 11	1.0		81 11 17	6.0	
12	1.5			18	8.0
13	2.0	1,000 × 1,000	19	10.0	1,000 × 1,000
14	3.0		20	12.0	
15	4.0		21	15.0	
81 11 16	5.0	1,000 × 1,000	81 11 22	20.0	1,000 × 1,000

Synthetic Rubber Joint Sheets

Planchas para juntas de caucho sintético

合成ゴム製ジョイントシート 合成橡胶接缝板

Construction & Features:

Made from natural oil-resistant rubber mixed into sheet form.

Applications:

For pipe flanges servicing petroleum solvent for heavy or light oil and for animal or vegetable oils.

Unit Per Mtr.

CODE	Thick mm	Sheet Size mm	CODE	Thick mm	Sheet Size mm
81 11 31	1.0		81 11 37	6.0	
32	1.5		38	8.0	
33	2.0	1,000 × 1,000	39	10.0	1,000 × 1,000
34	3.0		40	12.0	
35	4.0		41	15.0	
81 11 36	5.0	1,000 × 1,000	81 11 42	20.0	1,000 × 1,000

Viton Rubber Sheets

Hojas de caucho Viton バイトンゴムシート 氟橡胶板

Viton sheeting, known as fluoroelastomer or FKM, is highly appreciated for the most demanding industrial applications as it has the highest resistance to hydrocarbons, acids, alkalis and even oxidants, and its mechanical properties remain intact at temperatures of up to 200°C.



- Tensile strength : 6 - 8 MPa
- Elongation: 300%
- High temperature: 200°C
- Hardness 75+/15 Shore A

Applications:

Industrial maintenance (oils / high temperature) / Sealing

Unit Per Mtr.

CODE	Thickness × Width mm	Temperature	Shore Hardness	Article No.
81 11 43	1 × 1,000			RP630010
44	1.5 × 1,000			RP630015
45	2 × 1,000	200°C	75°	RP630020
46	3 × 1,000			RP630030
47	4 × 1,000			RP630040
81 11 48	5 × 1,000	200°C	75°	RP630050
49	6 × 1,000			RP630060

Cotton Insertion Rubber Joint Sheets

Planchas de caucho para juntas de inserción de algodón

綿入りゴムジョイントシート 棉质插入式橡胶接缝片

Construction:

Cotton inserted natural rubber sheet.

Applications:

For the same use as a natural rubber sheet.

Unit Per Mtr.

CODE	Thick mm	Sheet Size mm	CODE	Thick mm	Sheet Size mm
81 11 51	1.5	1,000 × 1,000	52	2.0	1,000 × 1,000

Canvas Inserted Rubber Joint Sheets

Planchas para juntas de goma insertadas en lona

キャンバス入りゴム製ジョイントシート 帆布嵌缝橡胶板

Construction & Features:

Made of quality, strong canvas inserted onto rubber sheet in the same way as cotton insertions but this construction is more durable.

Unit Per Mtr.

CODE	Thick mm	Sheet Size mm	CODE	Thick mm	Sheet Size mm
81 11 61	1.0		81 11 64	3.0	
62	1.5	1,000 × 1,000	65	4.0	1,000 × 1,000
63	2.0		66	5.0	

Leather Sheets

Sábanas de cuero レザーシート 皮革床单

Suitable for a wide variety of applications.

Unit Per Mtr.

CODE	Thick mm	Sheet Size mm	CODE	Thick mm	Sheet Size mm
81 11 71	1.0		81 11 75	4.0	
72	1.5		76	5.0	
73	2.0	300 × 300	77	6.0	300 × 300
74	3.0		78	8.0	

Felt Sheet Packings

Planchas Fieltró フェルトシート 毛毡片填料



Made from pressed white sheep hair shaped into sheet form. Used for filling or stopping oil because of its high absorbency to oil.

How to order: CODE

Felt sheet packing, WIDTH x LENGTH, THICKNESS mm

Unit Per Sht.

CODE	Thickness mm	W × L	Thickness mm	
			W	L
		900 × 1,000 mm		1,800 × 1,000 mm
81 11 81	2		81 11 91	2
82	3		92	3
83	4		93	4
84	5		94	5
85	6		95	6
81 11 86	8		81 11 96	8
87	10		97	10
88	12		98	12
89	20		99	20

Non-Asbestos Mica Jointing Sheets Pilotseal Jointing (201)

Plancha de fibra de mica sin amianto para juntas

ノンアスベスト・マイカジョイントシート 无石棉云母结合垫片

Non-asbestos jointing material for use in the sealing of hot, dry gases.

Performance:	
Max. Temperature	900°C
Max. Pressure	20 bar
Tensile Strength	20 MPa
Density	1.72 g/cm ³

Applications :

For use in refractory underlays, metal foundries, exhaust manifolds and as thermal insulation and sealing gasket within a wide range of industries.

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 12 63	0.5		81 12 66	1.5	
64	1.0	1,250 × 1,250	67	2.0	1,250 × 1,250
65	1.3		68	3.0	

Pilot Non-Asbestos Jointing Pilotseal 172**for Steam, Water, Oils, Gases, Dilute Acids and Alkalies**

Juntas Pilotseal 172 sin amianto para vapor, agua, aceites, gases y ácido y álcali diluidos

ノンアスベスト ジョイントパイロットシール 172

Pilotseal 172 无石棉结合垫片

High quality compressed jointing manufactured from heat resistant fibre and polymer.

The anti-stick graphite silver finish facilitates easy gasket removal and flange cleaning.

Performance:

Max. Temperature	475°C
Max. Pressure	13.8 N/mm ² (2,000 psi)
Tensile Strength	10.3 N/mm ² (1,500 psi)
Density	1.4 gm/cc

Applications:

For sealing against steam, water, oils, gases, dilute acids and alkalis.

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 12 80	0.5		81 12 83	1.5	
81	0.75	1,500 × 1,500	84	2.0	1,500 × 1,500
82	1.0		85	3.0	

**Expand Metal Insert Graphite Joint Sheets****Novaphit SSTC**

Juntas de Expansión de Grafito

エクスパンドメタル入りグラファイトジョイントシート

膨胀金属嵌件 石墨 接缝板



The highest quality gasket material based on pure exfoliated graphite with a stainless steel mesh reinforcement and no binders or adhesives. It is easier to cut than the traditional tang metal reinforced graphite and it is fire-safe approved by Lloyds. It exhibits virtually no creep in service. Available in sheet form or as a Cut Gasket to suit standard or non-standard flanges.

Performance:

Temperature	-240°C to 550°C
Stress Relaxation	300/C - 43 N/mm ² (approx)
DIN 52913	175/C - 45 N/mm ² (approx)

Applications:

For sealing high pressure steam, most hydrocarbons, solvents, flammable liquids, fuels, gases, alkalis and many acids.

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 12 86	1.0	1,000 × 1,000	87	1.5	1,000 × 1,000

Non-Asbestos Jointing Pilotseal 172**for Steam, Water, Oils, Gases, Dilute Acids and Alkalies**

Junta de unión sin amianto Pilotseal 178

ノンアスジョイント・パイロットシール 178

无石棉接缝导向密封 178

General service non-asbestos jointing manufactured from heat resistant synthetic fibre and polymer. The printed green 25 mm squares assist when cutting and making gaskets.

Performance:

Max. Temperature	400°C
Max. Pressure	6.9 N/mm ²
Tensile Strength	10.3 N/mm ² (1,500 psi)
Density	1.95 gm/cc

Applications:

For sealing against steam, water, oils, gases, dilute acids and alkalis.

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 12 91	0.5		81 12 94	1.5	
92	0.75	1,500 × 1,500	95	2.0	1,500 × 1,500
93	1.0		96	3.0	

High-Strength Rubber Sheet Gaskets**Reinforced in Aramid Fiber**

Plancha de caucho de alta resistencia reforzada con fibra de aramida アラミド繊維複合ゴムシートガスケット

高强度芳纶纤维复合橡胶垫片

**Pillar No.5003-NBR****Structure:**

An NBR rubber sheet gasket reinforced with short aramid fibers.

Feature:

1. High sealing performance.
2. Low stress relaxation and high mechanical strength.
3. High insulation performance.

Applications:

- Flange gaskets for water (including sea water) pipes
- Insulation gaskets
- Flanges for watertight test

Performance:

Temperature	-30 to 120°C
Pressure	up to 2.6 MPaG

Unit Per Shrt.

CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
81 13 55	1.5	1,270 × 1,270	81 13 57	3.0	1,270 × 1,270
56	2.0		58	6.0	

Low Creep PTFE Sheet Gaskets**Mixed with Selectable Fillers**

Plancha para juntas PTFE de baja percolación mezclada con relleno seleccionable

低クリープ充填材混合 PTFE シートガスケット

低蠕变充填材混合 PTFE 密封垫片

Pillar No.4001, 4002, and 4003**Structure:**

PTFE sheet gaskets with fillers.

Features & Applications:

Protected from creeping of PTFE sheet gasket by using different types of filler.



4001: High anti-creeping and acid-resistance properties. It is best suitable to the strong acid, hydrocarbon, water, steam, etc.

4002: Good compression property and superior fit with flange surfaces. It is also best suitable to the lining flange, etc. tightened at low torque, and to the substitution of enveloped gasket.

4003: High anti-creeping and alkaline-resistance properties. It is best suitable to the strong alkali and oxygen, and is also applicable safely to the food application in safe.

Properties and Performance

Pillar No.	4001	4002	4003
Hue (Colour)	Light brown	Aqua blue	White
Filler	Silicone dioxide low creep acid resistance	Particular glass compressible fit in well	Barium oxide low creep alkali-resistant
Temperature	-210 to 260°C		
Pressure	Up to 8.3 MPaG	Up to 5.1 MPaG	Up to 8.3 MPaG

Unit Per Shrt.					
CODE	Thick mm	Size mm	CODE	Thick mm	Size mm
4001			4003		
81 13 81	1.5		81 13 87	1.5	
82	2.0	1,500 × 1,500	88	2.0	1,500 × 1,500
83	3.0		89	3.0	
4002					
81 13 84	1.5				
85	2.0	1,500 × 1,500			
86	3.0				

Bi-directional PTFE Gasketing Materials**SICHEM S11**

Materiales de empaquetadura de PTFE bidireccional

PTFE フランジジョイントガスケット 双向 PTFE 垫片材料

A bi-directional oriented gasketing material on PTFE-basis, filled with silica, designed to achieve the lowest creep values and seal integrity, combining excellent chemical resistance and optimal sealing performances.

Can be used for applications with pH-range from 0 to 14 with exception to hydrogen fluoride, fluorine compounds and molten alkali metals.

**Applications:**

For all types of flanges joint connections in maritime applications in all sizes for temperatures from -260°C/+260°C and pressures classes up to 80 Bar

Characteristics:

Density: 2.2 g/cm³

Leckage DIN 3535-6 = <0.05 mg/(s*m)

KSW DIN 28090-2 = <4.0%

KRW DIN 28090-2 = >1.7%

WSW DIN 28090-2 = <24%

Tensile Strength ASTM F 152 = 15 N/mm²

Characteristics Certifications:

*FDA 21§177.1550 Approval

*LFGB and Regulation (EC) No.1935/2004

*BAM proofed for gaseous oxygen until 30 bar and +260°C

*EN 13555 (Qmin, Qsmin, PQR, ...)

*TA-Luft + Blowout test,

*DVGW

Unit Per Shrt.					
CODE	Thick (mm)	Size (mm)	CODE	Thick (mm)	Size (mm)
81 13 90	1.5	1,500 × 1,500	81 13 93	2.0	1,750 × 1,750
91	1.5	1,750 × 1,750	94	3.0	1,500 × 1,500
92	2.0	1,500 × 1,500	95	3.0	1,750 × 1,750

Name of Mfr: Planichem Srl

High Performance Non-Asbestos Sheets

Plancha de alta capacidad sin amianto

高機能ノンアスシート 高效非石棉纤维垫片

BLACKHYPER™**Valqua® No. GF300**

This gasket is mainly composed of PTFE as a binder and doesn't contain any rubber.

Features:

- Very minor change in physical properties even under high temperatures.
- Excellent chemical resistance.
- Excellent heat resistance.
- Easy to handle.
- Does not harden easily.
- No hardening makes retightening possible.

Temperature	Pressure
-200 to 300°C / -328 to 572°F	Max 3.5 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, liquefied gas.

Applications: Pipe flanges, valve bonnets, towers & tanks, pressure vessels and heat exchangers.

Color type: Black

Print color: Black

The ring molded article supports JPI (ASME / ANSI).

Unit Per Shrt.			
CODE	Thickness (mm)	CODE	Thickness (mm)
1,270 × 1,270 (mm)			1,500 × 1,500 (mm)
81 56 01	1.0	81 56 04	2.0
02	1.5	03	3.0

Compressed Non-Asbestos Fiber Sheets

Plancha de fibra comprimida sin amianto

ノンアスジョイントシート 压缩非石棉纤维垫片

Compressed Non-Asbestos Fiber Sheets are rolled and vulcanized sheet-type gasket materials, in which special rubber binders and a small amount of filler material are mixed with organic and inorganic fibers.

General use type**Valqua® No. 6500****Features:**

- An economical option.
- Easy to handle.

Temperature	Pressure
-50 to 183°C / -58 to 361°F	Max 3 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), liquefied gas.

Applications: Pipe flanges, valve bonnets and other equipment used in various industries.

Color type: Blue

Print color: Black

The ring molded article supports JPI (ASME / ANSI).

Unit Per Sht.			
CODE	Thickness (mm)	CODE	Thickness (mm)
	1,270 × 1,270 (mm)		2,540 × 3,810 (mm)
81 56 05	1.0	81 56 08	1.0
06	1.5	09	1.5
17	2.0	18	2.0
07	3.0	10	3.0

Anti-corrosion type

Valqua® No. 6500AC

This gasket is low in leachable chloride.

Feature:

- Corrosion suppressive

Temperature	Pressure
-50 to 183°C / -58 to 361°F	Max 3 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), liquefied gas.

Applications: Stainless steel pipe flanges, valve bonnets and other equipment used in various industries requiring corrosion resistance.

Color type: Blue
Print color: Orange

Unit Per Sht.			
CODE	Thickness (mm)	CODE	Thickness (mm)
	1,270 × 1,270 (mm)		2,540 × 3,810 (mm)
81 56 11	1.0	81 56 14	1.0
12	1.5	15	1.5
19	2.0	20	2.0
13	3.0	16	3.0

VALFLON™ (PTFE) Gaskets

Junta VALFLON™ (PTFE)

バルフロン PTFE ガスケット VALFLON™ (PTFE) 垫片

These are sheet gaskets made of VALFLON™ (PTFE) with excellent chemical resistant and non-stick properties.

VALQUALON™ (PTFE-blended sheet) Gasket

Junta VALQUALON™ (lámina con mezcla de PTFE)

バルカラングガスケット (聚四氟乙烯混合板材) 垫片

Valqua® No. 7020 (For oxidizing)

In order to improve the cold flow (the creep phenomenon), which is a drawback in PTFE, these gaskets are shaped by means of a special manufacturing process where inorganic filler material is compounded.

**Features:**

- Excellent acid resistance.
- Heat resistance.
- Anti-cold flow properties.
- Can handle various chemicals.

Temperature	Pressure
-200 to 200°C / -328 to 392 °F	Max 4 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids (especially, acid liquid), liquefied gas, cryogenic fluid, flammable gas.

Applications: Pipe flanges, valve bonnets, towers & tanks.

The ring molded article supports JPI (ASME / ANSI).

Unit Per Sht.			
CODE	Thickness (mm)	CODE	Thickness (mm)
	1,270 × 1,270 (mm)		1,500 × 1,500 (mm)
81 56 31	1.0	81 56 33	2.0
32	1.5	34	3.0

Black VALQUALON™ Gasket

Junta negra VALQUALON

ブラックバルカラングガスケット 黑色 VALQUALON™ 垫片

Valqua® No. 7026 (For alkali)

Similar to their companion products, the No. 7020 and No. 7026 gaskets have excellent heat resistance, chemical resistance, and anti-cold flow properties.

Features:

- Excellent alkali resistance.
- Heat resistance.
- Anti-cold flow properties.
- Handling various chemical.

Temperature	Pressure
-200 to 200°C / -328 to 392°F	Max 4 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids (especially, alkali liquid), liquefied gas, cryogenic fluid.

Applications: Pipe flanges, valve bonnets, towers & tanks. The ring molded article supports JPI (ASME / ANSI).

Unit Per Sht.

CODE	Thickness (mm)	Width × Length (mm)
81 56 35	1.5	
36	2.0	1,270 × 1,270
37	3.0	

New VALFON™ Gasket

Nueva junta VALFON ニューバルフロンカスケット 新 VALFON™ 垫片

Valqua® No. 7010-EX

Made of New VALFON™ material with improved anti-creeping performance, while maintaining the PTFE's excellent chemical resistance.

**Features:**

- Anti-creeping performance.
- Excellent chemical resistance.
- Heat resistance.
- Non-stick properties.

Temperature	Pressure
-50 to 150°C / -58 to 302°F	Max 1 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids, liquefied gas.

Applications: Pipe flanges, valve bonnets, towers & tanks. The ring molded article supports JPI (ASME / ANSI).

Unit Per Sht.

CODE	Thick (mm)	Size (mm)	CODE	Thick (mm)	Size (mm)
81 56 38	1.5	1,100×1,100	81 56 39	3.0	1,100×1,100

VALFON™ Soft Sheet

VALFON™ Hoja Blanda バルフロンソフトシート VALFON™ 软床单

Valqua® No. 7GP61S

This highly flexible sheet has a specially made mesh construction.

**Features:**

- Highly flexible sheets.
- Excellent chemicals resistance.
- Heat resistance.

Temperature	Pressure
-240 to 260°C / -400 to 500°F	Max 2 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids.

Applications: Pipe flanges, valve bonnets, towers & tanks. The ring molded article supports JPI (ASME / ANSI).

Unit Per Sh.

CODE	Thickness (mm)	Width × Length (mm)
81 56 41	1.5	
42	2.0	
43	3.0	1,500 × 1,500

VALQUAFOIL™ (Expanded Graphite) Gaskets

Junta VALQUAFOIL™ (grafito expandido)

バルカホイルシートガasket

VALQUAFOIL™ (膨胀石墨) 垫片

Valqua® No. VF-35E

Leverages the characteristics of the pure graphite sealing material VALQUAFOIL™.

**Features:**

- Excellent heat resistance.
- Very small changes in physical properties under high temperatures.
- Low stress relaxation.
- Chemical resistance.

Temperature

Pressure

-240 to 400°C / -400 to 752°F	Max 5 MPa
-------------------------------	-----------

Suitable fluids: General fluids (water, steam, oil, etc.), corrosive liquids, liquefied gas, cryogenic fluid.

Unsuitable fluids: Not applicable to oxidizing acids such as hot concentrated sulfuric acid and concentrated nitric acid.

Applications: Pipe flanges, valve bonnets, covers, various industries.

The ring molded article supports JPI (ASME / ANSI).

Unit Per Sh.

CODE	Thick (mm)	Size	CODE	Thick (mm)	Size
81 56 51 52	0.8 1.6	1,000 × 1,000	81 56 53	3.0	1,000 × 1,000

Non-Asbestos Manhole Packings

Empaqueadura de Amianto para Registro

マンホールパッキン 非石棉密封垫

Flat folded glass cloth with rubber lined manhole packing in the required manhole sizes. All sizes are made to order except for the standard sizes listed below. When ordering, specify the inside longer length (L), inside shorter length (S), width (W), and thickness (T).

**How to order: CODE**

Manhole packing, non-asbestos, INSIDE LONGER LENGTH, INSIDE SHORTER LENGTH, WIDTH and THICKNESS mm

Unit Per Pcs.

CODE	Dimensions mm			
	Inside Length (L)	Inside Length (S)	Width (W)	Thick (T)
81 15 96 97	400	300	25.4	6.4
81 15 98 99	380	260	25.4	6.4
			22.3	9.6
			22.3	9.6

*Sizes not listed above are made to order.

Spiral Wound Gaskets

Juntas Espirométicas スpiralガasket 缠绕式垫片



Spirally wound gaskets are constructed of a continuous strip of preformed V shaped metal which is wound spirally with pure graphite and inorganic fibers as fillers instead of asbestos, which is excellent in gas sealing and heat resistance. The complex combination of a single metal ply and soft filler offers greater resiliency than any other metallic gasket and therefore provides good compensation for relaxation, temperature or pressure cycling, and shock or vibration.

Because there is a variety of sizes, shapes, and materials available such as copper, iron, stainless steel, monel, aluminium, and combinations of metal, pure graphite and inorganic fibers, please specify the details referring to the illustration below. A sample is acceptable for order made gaskets, but the standard shapes are illustrated below for your information.

Applications: Pipe flanges, tanks, valve bonnets and other equipment.

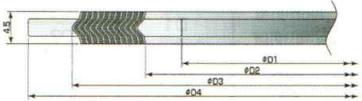
< Standard Shape of Spiral Wound Gasket >

Type	Usage
With Inner & Outer Ring 	Used on plain flat face, and raised face flanges. Inner ring prevents inner buckling of sealing element, protects from heat and media. Outer ring serves to center the gasket in the flange joint and work to prevent media from blowout.
With Outer Ring 	Used on plain flat face flanges, and raised face flanges. Outer ring serves to center the gasket in the flange joint and work to prevent media from blowout.
With Inner Ring 	Used for tongue and groove type, male and female type of flanges, sealing the pump casing joint and valves bonnet and body fixing joints
Basic 	

< Standard Material of Spiral Wound Gasket >

Material Type	Temperature	Pressure	Suitable fluids
Expanded Graphite	-270 to 450°C / -454 to 842°F	Max 43.1 MPa	General fluids (water, oil, etc.), high temperature & high pressure steam, liquefied gas, cryogenic fluid.
Non Asbestos	-200 to 500°C / -328 to 932°F	Max 30.0 MPa	General fluids (water, steam, oil etc.), high temperature & high pressure fluids, liquefied gas
PTFE	-200 to 260°C / -328 to 500°F	Max 15.5 MPa	General fluids (water, steam, oil, etc.), solvents, corrosive liquids, liquefied gas, gas (oxygen, etc.)

* For use under a non-oxidizing atmosphere, it is up to 600°C.

Round Shape with Inner & Outer Rings "IOR"**How to order: CODE**

Gasket, wound, spiral, Shape "IOR", SIZE, PRESSURE,
MATERIAL (GRAPHITE/ PTFE/NON ASBESTOS), THICKNESS

JIS 10K, 16K/20K

Nom. Dia	CODE	D1	JIS 10K			JIS 16K, 20K			Unit Per Pcs.			
			Main Gasket		D4	CODE	D1	Main Gasket		D4	D2	D3
			D2	D3				D2	D3			
10A	81 57 01	18	24	37	52	81 57 26	18	24	37	52		
15A	02	22	28	41	57	27	22	28	41	57		
20A	03	28	34	47	62	28	28	34	47	62		
25A	04	34	40	53	74	29	34	40	53	74		
32A	05	43	51	67	84	30	43	51	67	84		
40A	81 57 06	49	57	73	89	81 57 31	49	57	73	89		
50A	07	61	69	89	104	32	61	69	89	104		
65A	08	77	87	107	124	33	77	87	107	124		
80A	09	89	98	118	134	34	89	98	119	140		
90A	10	102	112	130	144	35	102	112	139	150		
100A	81 57 11	115	125	143	159	81 57 36	115	127	152	165		
125A	12	140	152	173	190	37	140	152	177	202		
150A	13	166	178	199	220	38	166	182	214	237		
175A	-	-	-	-	-	-	-	-	-	-		
200A	14	217	229	252	270	39	217	233	265	282		
225A	-	-	-	-	-	-	-	-	-	-		
250A	81 57 15	268	282	310	332	81 57 40	268	288	328	354		
300A	16	319	333	361	377	41	319	339	379	404		
350A	17	356	372	406	422	42	356	376	416	450		
400A	18	407	423	457	484	43	407	432	482	508		
450A	81 57 19	458	478	518	539	81 57 44	458	483	533	573		
500A	20	508	528	568	594	45	508	533	583	628		
550A	21	559	579	619	650	46	559	584	634	684		
600A	22	610	630	670	700	47	610	635	685	734		

DIN PN10, PN16

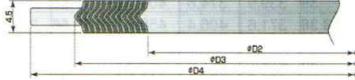
Nom. Dia	CODE	D1	PN 10			PN 16			Unit Per Pcs.			
			Main Gasket		D4	CODE	D1	Main Gasket		D4	D2	D3
			D2	D3				D2	D3			
10A	81 57 51	18	24	36	46	81 57 71	18	24	36	46		
15A	52	24	30	42	51	72	24	30	42	51		
20A	53	27	33	47	61	73	27	33	47	61		
25A	54	34	40	54	71	74	34	40	54	71		
32A	55	44	50	66	82	75	44	50	66	82		
40A	81 57 56	51	57	73	92	81 57 76	51	57	73	92		
50A	57	59	69	87	107	77	59	69	87	107		
65A	58	73	83	103	127	78	73	83	103	127		
80A	59	87	97	117	142	79	87	97	117	142		
100A	81 57 60	114	124	144	162	81 57 80	114	124	144	162		
125A	61	140	150	172	192	81	140	150	172	192		
150A	62	168	178	200	217	82	168	178	200	217		
175A	63	189	199	225	247	83	189	199	225	247		
200A	64	220	230	256	272	84	220	230	256	272		
225A	-	-	-	-	-	-	-	-	-	-		
250A	81 57 65	269	279	307	327	81 57 85	269	279	307	328		
300A	66	319	329	357	377	86	319	329	357	383		
350A	67	365	375	405	437	87	365	375	405	443		
400A	68	416	426	458	488	88	416	426	458	495		
450A	-	-	-	-	-	-	-	-	-	-		
500A	81 57 69	520	530	566	593	81 57 89	520	530	566	617		
550A	-	-	-	-	-	-	-	-	-	-		
600A	81 57 70	615	630	666	695	81 57 90	615	630	666	734		

ASME/ANSI Class 150, 300

Nom. Dia	CODE	D1	ASME Class 150			ASME Class 300			Unit Per Pcs.			
			Main Gasket		D4	CODE	D1	Main Gasket		D4	D2	D3
			D2	D3				D2	D3			
1/2B	81 57 91	14.2	19.0	31.8	47.8	81 58 11	14.2	19.0	31.8	54.1		
3/4B	92	20.6	25.4	39.6	57.2	12	20.6	25.4	39.6	66.8		
1B	93	26.9	31.8	47.8	66.8	13	26.9	31.8	47.8	73.2		
1-1/4B	94	38.1	47.8	60.5	76.2	14	38.1	47.8	60.5	82.6		
1-1/2B	95	44.4	54.1	69.8	85.9	15	44.4	54.1	69.8	95.2		
2B	81 57 96	55.6	69.8	85.9	104.9	81 58 16	55.6	69.8	85.9	111.3		
2-1/2B	97	66.5	82.6	98.6	124.0	17	66.5	82.6	98.6	130.3		
3B	98	81.0	101.6	120.6	136.7	18	81.0	101.6	120.6	149.4		
3-1/2B	99	93.7	114.3	133.3	161.9	19	93.7	114.3	133.3	165.1		
4B	81 58 00	106.4	127.0	149.4	174.8	20	106.4	127.0	149.4	181.1		

(to be continued)

5B	81 58 01	131.8	155.7	177.8	196.8	81 58 21	131.8	155.7	177.8	196.8	215.9
6B	02	157.2	182.6	209.6	222.2	22	157.2	182.6	209.6	225.0	251.0
8B	03	215.9	233.4	263.7	279.4	23	215.9	233.4	263.7	280.8	308.1
10B	04	268.2	287.3	317.5	339.9	24	268.2	287.3	317.5	362.0	422.4
12B	05	317.5	339.9	374.6	409.7	25	317.5	339.9	374.6	422.4	485.9
14B	81 58 06	349.2	371.6	406.4	450.8	81 58 26	349.2	371.6	406.4	450.8	485.9
16B	07	400.0	422.4	463.6	514.4	27	400.0	422.4	463.6	539.8	593.8
18B	08	449.3	474.7	527.0	549.4	28	449.3	474.7	527.0	569.6	633.8
20B	09	500.1	525.5	577.8	606.6	29	500.1	525.5	577.8	654.0	717.4
24B	10	603.2	628.6	685.8	717.6	30	603.2	628.6	685.8	774.7	

Round Shape with Outer Ring "OR"**How to order: CODE**

Gasket, wound, spiral, Shape "OR", SIZE, PRESSURE,
MATERIAL (GRAPHITE/ PTFE/NON ASBESTOS), THICKNESS

JIS 10K, 16K/20K

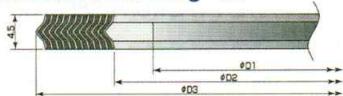
Nom. Dia	CODE	D1	JIS 10K			JIS 16K, 20K			Unit Per Pcs.			
			Main Gasket		D4	CODE	D1	Main Gasket		D4	D2	D3
			D2	D3				D2	D3			
10A	81 58 31	24	37	52	81 58 56	24	37	52	57	81 58 61	57	73
15A	32	28	41	57	57	28	41	57	57	62	69	89
20A	33	34	47	62	58	34	47	62	58	63	87	107
25A	34	40	53	74	59	40	53	74	59	60	99	117
32A	35	51	67	84	60	51	67	84	60	66	84	100
40A	81 58 36	57	73	92	81 58 61	57	73	92	97	81 58 66	57	73
50A	37	69	89	104	62	69	89	104	62	68	89	104
65A	38	87	107	124	63	87	107	124	63	68	87	104
80A	39	98	118	134	64	98	99	117	134	64	99	117
90A	40	110	130	144	65	110	117	144	1			

ASME/ANSI Class 150, 300

Unit Per Pc.

ASME Class 150			ASME Class 300					
Nom. Dia	CODE	Main Gasket	D4	CODE	Main Gasket			
		D2	D3		D2	D3	D4	
1/2B	81 59 21	19.0	31.8	47.8	81 59 41	19.0	31.8	54.1
3/4B	22	25.4	39.6	57.2	42	25.4	39.6	66.8
1B	23	31.8	47.8	66.8	43	31.8	47.8	73.2
1-1/4B	24	47.8	60.5	76.2	44	47.8	60.5	82.6
1-1/2B	25	54.1	69.8	85.9	45	54.1	69.8	95.2
2B	81 59 26	69.8	85.9	104.9	81 59 46	69.8	85.9	111.3
2-1/2B	27	82.6	98.6	124.0	47	82.6	98.6	130.3
3B	28	101.6	120.6	136.7	48	101.6	120.6	149.4
3-1/2B	29	114.3	133.3	161.9	49	114.3	133.3	165.1
4B	30	127.0	149.4	174.8	50	127.0	149.4	181.1
5B	81 59 31	155.7	177.8	196.8	81 59 51	155.7	177.8	215.9
6B	32	182.6	209.6	222.2	52	182.6	209.6	251.0
8B	33	233.4	263.7	279.4	53	233.4	263.7	308.1
10B	34	287.3	317.5	339.9	54	287.3	317.5	362.0
12B	35	339.9	374.6	409.7	55	339.9	374.6	422.4
14B	81 58 36	371.6	406.4	450.8	81 59 56	371.6	406.4	485.9
16B	37	422.4	463.6	514.4	57	422.4	463.6	539.8
18B	38	474.7	527.0	549.4	58	474.7	527.0	596.9
20B	39	525.5	577.8	606.6	59	525.5	577.8	654.0
24B	40	628.6	685.8	717.6	60	628.6	685.8	774.7

Round Shape with Inner Ring "IR"



How to order: CODE

Gasket, wound, spiral, Shape "IR", SIZE, PRESSURE,
MATERIAL (GRAPHITE/PTFE/NON ASBESTOS), THICKNESS

JIS 16K - 63K

Unit Per Pc.

CODE	Nominal Diameter	D1	Main Gasket		Unit Per Pc.
			D2	D3	
81 59 61	10A	19	25	38	
62	15A	23	29	42	
63	20A	31	37	50	
64	25A	38	44	60	
65	32A	46	54	70	
81 59 66	40A	51	59	75	
67	50A	62	70	90	
68	65A	80	90	110	
69	80A	90	100	120	
70	90A	100	110	130	
81 59 71	100A	113	125	145	
72	125A	138	150	175	
73	150A	171	187	215	
74	200A	215	231	259	
75	250A	268	288	324	
81 59 76	300A	318	338	374	
77	350A	356	376	414	
78	400A	409	434	474	

DIN PN10, PN16

Unit Per Pc.

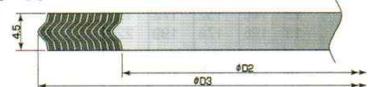
CODE	Nominal Diameter	D1	Main Gasket		Unit Per Pc.
			D2	D3	
81 59 81	10A	18	24	36	
82	15A	24	30	42	
83	20A	27	33	47	
84	25A	34	40	54	
85	32A	44	50	66	
81 59 86	40A	51	57	73	
87	50A	59	69	87	
88	65A	73	83	103	
89	80A	87	97	117	
-	90A	-	-	-	
81 59 90	100A	114	124	144	
91	125A	140	150	172	
92	150A	168	178	200	
93	175A	189	199	225	
94	200A	220	230	256	
-	225A	-	-	-	
81 59 95	250A	269	279	307	
96	300A	319	329	357	
97	350A	365	375	405	
98	400A	416	426	458	
81 59 99	450A	-	-	-	
81 60 00	500A	520	530	566	
-	550A	-	-	-	
81 60 00	600A	615	630	666	

ASME/ANSI Class 300

Unit Per Pc.

CODE	Nominal Diameter	D1	Main Gasket		Unit Per Pc.
			D2	D3	
81 60 01	1/2B	14.2	25.1	35.4	
02	3/4B	20.6	33.0	43.2	
03	1B	26.9	37.8	51.1	
04	1-1/4B	38.1	47.2	63.8	
05	1-1/2B	44.4	53.5	73.5	
81 60 06	2B	55.6	72.6	92.5	
07	2-1/2B	66.5	85.3	105.2	
08	3B	81.0	107.6	127.3	
09	3-1/2B	93.7	120.3	140.0	
10	4B	106.4	131.2	157.6	
81 60 11	5B	131.8	160.0	186.3	
12	6B	157.2	190.2	216.3	
13	8B	215.9	237.7	270.0	
14	10B	268.2	285.7	323.9	
15	12B	317.5	342.9	381.0	
81 60 16	14B	349.2	374.6	412.8	
17	16B	400.0	425.4	469.9	
18	18B	449.3	488.9	533.4	
19	20B	500.1	533.4	584.2	
20	24B	603.2	641.8	691.7	

Round Shape "R"



How to order: CODE

Gasket, wound, spiral, Shape "R", SIZE, PRESSURE, MATERIAL (GRAPHITE/PTFE/NON ASBESTOS), THICKNESS

JIS 16K - 63K

Unit Per Pc.

Nominal Diameter	Tongue & Groove Flange			Unit Per Pc.
	CODE	D2	D3	
10A	81 60 21	28	38	81 60 41
15A	22	32	42	42
20A	23	38	50	43
25A	24	45	60	44
32A	25	55	70	45
40A	81 60 26	60	75	81 60 46
50A	27	70	90	47
65A	28	90	110	48
80A	29	100	120	49
90A	30	110	130	50
100A	81 60 31	125	145	81 60 51
125A	32	150	175	52
150A	33	190	215	53
200A	34	230	259	54
250A	35	296	324	55
300A	81 60 36	341	374	81 60 56
350A	37	381	414	57
400A	38	441	474	58

DIN PN10, PN16

Unit Per Pc.

CODE	Nominal Diameter	D2	D3	Unit Per Pc.
				CODE
81 60 61	10A	24	36	
62	15A	30	42	
63	20A	33	47	
64	25A	40	54	
65	32A	50	66	
81 60 66	40A	57	73	
67	50A	69	87	
68	65A	83	103	
69	80A	97	117	
90A	-	-	-	
81 60 70	100A	124	144	
71	125A	150	172	
72	150A	178	200	
73	175A	199	225	
74	200A	230	256	
-	225A	-	-	
81 60 75	250A	279	307	
76	300A	329	357	
77	350A	375	405	
78	400A	426	458	
-	450A	-	-	
81 60 79	500A	530	566	
-	550A	-	-	
81 60 80	600A	630	666	

ASME/ANSI Class 300 - 2500

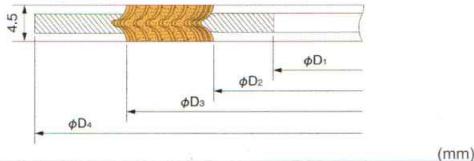
Unit Per Pcs.

CODE	Nominal Diameter	D2	D3
81 60 81	1/2B	25.1	35.4
82	3/4B	33.0	43.2
83	1B	37.8	51.1
84	1-1/4B	47.2	63.8
85	1-1/2B	53.5	73.5
81 60 86	2B	72.6	92.5
87	2-1/2B	85.3	105.2
88	3B	107.6	127.3
89	3-1/2B	120.3	140.0
90	4B	131.2	157.6
81 60 91	5B	160.0	186.3
92	6B	190.2	216.3
93	8B	237.7	270.0
94	10B	285.7	323.9
95	12B	342.9	381.0
81 60 96	14B	374.6	412.8
97	16B	425.4	469.9
98	18B	488.9	533.4
99	20B	533.4	584.2
81 61 00	24B	641.8	691.7

JIS Standard Gasket Size for other Rating Pressure

IR ID = Inner Ring Inner Diameter

OR OD = Outer Ring Outer Diameter



30K

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
10A	18	24	37	59
15A	22	28	41	64
20A	28	34	47	69
25A	34	40	53	79
32A	43	51	67	89
40A	49	57	73	100
50A	61	69	89	114
65A	68	78	98	140
80A	80	90	110	150
90A	92	102	127	162
100A	104	116	141	172
125A	128	140	165	207
150A	153	165	197	249
175A	-	-	-	-
200A	202	218	250	294
225A	-	-	-	-
250A	251	271	311	360
300A	300	320	360	418
350A	336	356	396	463
400A	383	403	453	524

40K

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
10A	15	21	34	59
15A	18	24	37	64
20A	23	29	42	69
25A	29	35	48	79
32A	38	44	60	89
40A	43	51	67	100
50A	55	63	79	114
65A	68	78	98	140
80A	80	90	110	150
90A	92	102	127	162
100A	104	116	141	182
125A	128	140	165	224
150A	153	165	197	265
175A	-	-	-	-
200A	202	218	250	315
225A	-	-	-	-
250A	251	271	311	378
300A	300	320	360	434
350A	336	356	396	479
400A	383	403	453	531

63K

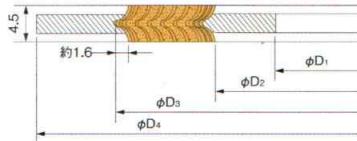
Unit Per Pcs.

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
10A	15	21	34	64
15A	18	24	37	69
20A	23	29	42	75
25A	29	35	48	80
32A	38	44	60	90
40A	43	51	67	107
50A	55	63	79	125
65A	68	78	98	152
80A	80	90	110	162
90A	92	102	127	179
100A	104	116	141	194
125A	128	140	165	235
150A	153	165	197	275
175A	-	-	-	-
200A	202	218	250	328
225A	-	-	-	-
250A	251	271	311	394
300A	300	320	360	446
350A	336	356	396	488
400A	383	403	453	545

DIN Standard Gasket Size for other Rating Pressure

IR ID = Inner Ring Inner Diameter

OR OD = Outer Ring Outer Diameter



PN25, 40

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
10A	18	24	36	46
15A	24	30	42	51
20A	27	33	47	61
25A	34	40	54	71
32A	44	50	66	82
40A	51	57	73	92
50A	59	69	87	107
65A	73	83	103	127
80A	87	97	117	142
90A	-	-	-	-
100A	114	124	144	168
125A	140	150	172	194
150A	168	178	200	224
175A	189	199	225	254
200A	220	230	256	284
225A	-	-	-	-
250A	269	279	307	352
300A	319	329	357	417
350A	365	375	405	474
400A	416	426	458	546
450A	-	-	-	-
500A	520	530	566	624
550A	-	-	-	-
600A	615	630	666	731

PN64 - 250

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD			
		ID	OD	PN64	PN100	PN160	PN250
10A	18	24	36	56	56	56	67
15A	24	30	42	61	61	61	72
20A	27	33	47	72	72	-	-
25A	34	40	54	82	82	82	83
32A	44	50	66	87	87	-	-
40A	51	57	73	103	103	103	109
50A	59	69	87	113	113	119	124
65A	73	83	103	138	144	144	154
80A	87	97	117	148	154	154	170
90A	-	-	-	-	-	-	-
100A	114	124	144	174	180	180	202
125A	140	150	172	210	217	217	242
150A	168	178	200	247	257	257	284
175A	189	199	225	277	287	284	316
200A	220	230	256	309	324	324	358

(to be continued)

PN64 - 250

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD			
		ID	OD	PN64	PN100	PN160	PN250
		D1	D2	D3	D4		
225A	-	-	-	-	-	-	-
250A	269	279	307	364	391	388	442
300A	319	329	357	424	458	458	538
350A	365	375	405	486	512	-	-
400A	416	426	458	543	572	-	-
450A	-	-	-	-	-	-	-
500A	520	530	566	657	704	-	-
550A	-	-	-	-	-	-	-
600A	615	630	666	764	813	-	-

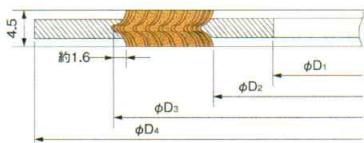
Class 900

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
		D1	D2	
1/2B	14.2	19.1	31.8	63.5
3/4B	20.6	25.4	39.6	69.9
1B	26.9	31.8	47.8	79.5
1-1/4B	33.3	39.6	60.5	88.9
1-1/2B	41.4	47.8	69.9	98.6
2B	52.3	58.7	85.9	143.0
2-1/2B	63.5	69.9	98.6	165.1
3B	78.7	95.3	120.7	168.4
4B	102.6	120.7	149.4	206.5
5B	128.3	147.6	177.8	247.7
6B	154.9	174.8	209.6	289.1
8B	196.9	225.6	257.3	358.9
10B	246.1	276.4	311.2	435.1
12B	292.1	323.9	368.3	498.6
14B	320.8	355.6	400.1	520.7
16B	374.7	412.8	457.2	574.8
18B	425.5	463.6	520.7	638.3
20B	482.6	520.7	571.5	698.5
24B	590.6	628.7	679.5	838.2

ASME/ANSI Standard Gasket Size for other Rating Pressure

IR ID = Inner Ring Inner Diameter
 OR OD = Outer Ring Outer Diameter



81 Class 400

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
		D1	D2	
1/2B	14.2	19.1	31.8	54.1
3/4B	20.6	25.4	39.6	66.8
1B	26.9	31.8	47.8	73.2
1-1/4B	38.1	47.8	60.5	82.6
1-1/2B	44.5	54.1	69.9	95.3
2B	55.6	69.9	85.9	111.3
2-1/2B	66.5	82.6	98.6	130.3
3B	81.0	101.6	120.7	149.4
4B	102.6	120.7	149.4	177.8
5B	128.3	147.6	177.8	212.9
6B	154.9	174.8	209.6	247.7
8B	205.7	225.6	263.7	304.8
10B	255.3	274.6	317.5	358.9
12B	307.3	327.2	374.7	419.1
14B	342.9	362.0	406.4	482.6
16B	389.9	412.8	463.6	536.7
18B	438.2	469.9	527.1	593.9
20B	489.0	520.7	577.9	647.7
24B	590.6	628.7	685.8	768.4

Class 1500

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
		D1	D2	
1/2B	14.2	19.1	31.8	63.5
3/4B	20.6	25.4	39.6	69.9
1B	26.9	31.8	47.8	79.5
1-1/4B	33.3	39.6	60.5	88.9
1-1/2B	41.4	47.8	69.9	98.6
2B	52.3	58.7	85.9	143.0
2-1/2B	63.5	69.9	98.6	165.1
3B	78.7	92.2	120.7	174.8
4B	97.8	117.6	149.4	209.6
5B	124.5	143.0	177.8	254.0
6B	147.3	171.5	209.6	282.7
8B	196.9	215.9	257.3	352.6
10B	246.1	266.7	311.2	435.1
12B	292.1	323.9	368.3	520.7
14B	320.8	362.0	400.1	577.9
16B	368.3	406.4	457.2	641.4
18B	425.5	463.6	520.7	704.9
20B	476.3	514.4	571.5	755.7
24B	577.9	616.0	679.5	901.7

Class 600

(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
		D1	D2	
1/2B	14.2	19.1	31.8	54.1
3/4B	20.6	25.4	39.6	66.8
1B	26.9	31.8	47.8	73.2
1-1/4B	38.1	47.8	60.5	82.6
1-1/2B	44.5	54.1	69.9	95.3
2B	55.6	69.9	85.9	111.3
2-1/2B	66.5	82.6	98.6	130.3
3B	81.0	101.6	120.7	149.4
4B	102.6	120.7	149.4	193.8
5B	128.3	147.6	177.8	241.3
6B	154.9	174.8	209.6	266.7
8B	205.7	225.6	263.7	320.8
10B	255.3	274.6	317.5	400.1
12B	307.3	327.2	374.7	457.2
14B	342.9	362.0	406.4	492.3
16B	389.9	412.8	463.6	565.2
18B	438.2	469.9	527.1	612.9
20B	489.0	520.7	577.9	682.8
24B	590.6	628.7	685.8	790.7

Class 2500

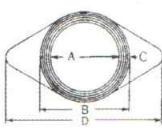
(mm)

Nominal Diameter	IR ID	Main Gasket		OR OD
		ID	OD	
		D1	D2	
1/2B	14.2	19.1	31.8	69.9
3/4B	20.6	25.4	39.6	76.2
1B	26.9	31.8	47.8	85.9
1-1/4B	33.3	39.6	60.5	104.9
1-1/2B	41.4	47.8	69.9	117.6
2B	52.3	58.7	85.9	146.1
2-1/2B	63.5	69.9	98.6	168.4
3B	78.7	92.2	120.7	196.9
4B	97.8	117.6	149.4	235.0
5B	124.5	143.0	177.8	279.4
6B	147.3	171.5	209.6	317.5
8B	196.9	215.9	257.3	387.4
10B	246.1	270.0	311.2	476.3
12B	292.1	317.5	368.3	549.4

<Other Shape of Spiral Wound Gasket>

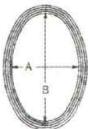
Hanger Shape

When ordering, specify PRESSURE, MATERIAL, LARGEST OUTSIDE SIZE (D), OUTER DIAM (B), INNER DIAM (A), and THICKNESS. Inner or outer ring if any.



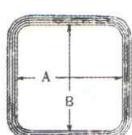
Oval Shape

When ordering, specify PRESSURE, MATERIAL, INNER & OUTER SIZES for A, INNER & OUTER SIZES for B, and THICKNESS.



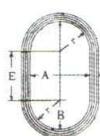
Square Shape

When ordering, specify PRESSURE, MATERIAL, INNER & OUTER SIZES for A, INNER & OUTER SIZES for B and THICKNESS.



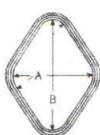
Oblong Shape

When ordering, specify PRESSURE, MATERIAL, INNER & OUTER SIZES for A, INNER & OUTER SIZES for B, RADIUS for r, LENGTH for E, and THICKNESS.



Diamond Shape

When ordering, specify PRESSURE, MATERIAL, INNER & OUTER SIZES for A, INNER & OUTER SIZES for B, RADIUS for r1 & r2, and THICKNESS.



Non-Asbestos Spiral Wound Gasket

Manufacturing ranges:

Gasket Thickness	Manufacturing ranges Inside Diameter (mm)		
	R	OR	IR
4.5	10 to 3.000		
Valqua® No.	Type		
* * * 0 Series (for example 6590 series)	R	Basic	
* * * 1 Series (for example 6591 series)	OR	With Outer Ring	
* * * 2 Series (for example 6592 series)	IR	With Inner Ring	
* * * 6 Series (for example 6596 series)	IOR	With Inner & Outer Ring	

Applications: Pipe flanges, tanks, valve bonnets and other equipment

BLACKTIGHT™

VALQUA® No. 6590 Series



These gaskets are composed of pure graphite (expanded graphite) as filler material.

Features:

- Reducing retightening frequency
- Excellent air tightness
- Excellent sealing properties at very low temperatures

Temperature	Pressure
-270 to 450°C / -454 to 842°F	Max 30.0 MPa

Suitable fluids: General fluids (water, oil, etc.), high temperature & high pressure steam, liquefied gas, cryogenic fluid.

Unit Per Pcs.

CODE	Valqua® No.	Type	
81 18 03	6590	R	Basic
81 18 04	6591	OR	With outer ring
81 18 05	6592	IR	With inner ring
81 18 06	6596	IOR	With inner & outer ring

How to order: 81 - 18 - XX

Gasket, wound, spiral, SHAPE, PRESSURE, MATERIAL (INNER RING, HOOP, OUTER RING), OUTER DIAM, INNER DIAM, THICKNESS

WHITETIGHT™

VALQUA® No. 7590 Series



These gaskets are composed of PTFE tape as a filler material.

Features:

- Excellent corrosion resistance
- Excellent air tightness

Temperature	Pressure
-260 to 300°C / -436 to 572°F	Max 20.0 MPa

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids, liquefied gas, gas (oxygen, etc.)

Unit Per Pcs.

CODE	Valqua® No.	Type	
81 18 07	7590	R	Basic
81 18 08	7592	IR	With inner ring
81 18 09	7596	IOR	With inner & outer ring

How to order: 81 - 18 - XX

Gasket, wound, spiral, SHAPE, PRESSURE, MATERIAL (INNER RING, HOOP, OUTER RING), OUTER DIAM, INNER DIAM, THICKNESS

CLEANTIGHT™

VALQUA® No. 8590 Series



These gaskets are composed of non-asbestos-based inorganic paper tape as a filler material.

Features:

- Excellent heat resistance

Temperature	Pressure
-200 to 500°C / -328 to 932°F	Max 30.0 MPa

Suitable fluids: General fluids (water, steam, oil etc.), high-temperature & high-pressure fluids, liquefied gas

Unit Per Pcs.

CODE	Valqua® No.	Type	
81 18 31	8590	R	Basic
81 18 32	8591	OR	With outer ring
81 18 33	8592	IR	With inner ring
81 18 34	8596	IOR	With inner & outer ring

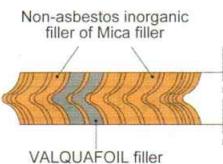
How to order: 81 - 18 - XX

Gasket, wound, spiral, SHAPE, PRESSURE, MATERIAL (INNER RING, HOOP, OUTER RING), OUTER DIAM, INNER DIAM, THICKNESS

Spiral Wound Gaskets with Lines Lined CLEANTIGHT™

VALQUA® No. 8590L Series

These gaskets are composed of VALQUAFOIL™ (expanded graphite sealing material) filler that has been wound in the middle of inorganic fillers.



Features:

- Excellent heat resistance
- Airtight

Temperature		Pressure	
-200 to 600°C / -328 to 1,112°F		Max 30.0 MPa	

Unit Per Pcs.

CODE	Valqua® No.	Type	
81 18 35	8590L	R	Basic
81 18 36	8591L	OR	With outer ring
81 18 37	8592L	IR	With inner ring
81 18 38	8596L	IOR	With inner & outer ring

How to order: 81 - 18 - XX

Gasket, wound, spiral, SHAPE, PRESSURE, MATERIAL (INNER RING, HOOP, OUTER RING), OUTER DIAM, INNER DIAM, THICKNESS

VALFLON™ Envelope Gaskets

VALFON® 封套型垫片

Junta envolvente VALFLON™

バルフロン・ジャケット形ガスケット



VALQUA® No. N7030 series

VALFLONTM (PTFE) Envelope Gasket using Compressed Non-Asbestos Fiber Sheet and Flexible Graphite in the core.

Feature:

- Excellent chemical resistance

Type	Temperature	Pressure (MPa)	Standard thickness (mm)
N	-100 to 150°C -148 to 302°F	Max 1.5	2.8
S	-100 to 200°C -148 to 392°F	Max 2.0	3.2
H	-100 to 260°C -148 to 500°F	Max 3.0	4.0

Suitable fluids: General fluids (water, steam, oil, etc.), solvents, corrosive liquids, liquefied gas.

Applications: Pipe flanges, tanks, valve bonnets, and other equipment used in various industries.

The ring molded article supports JPI (ASME / ANSI).

Type of VALFLON™ Envelope Gasket.

Unit Per Pcs.

CODE	VALQUA® No.	Type
81 19 03	N7030 (N)	VALFLON™(PTFE) Jacket Compressed Non-Asbestos Fiber Sheet
81 19 04	N7030 (S)	VALFLON™(PTFE) Jacket Non-Asbestos Felt Sheet Compressed Non-Asbestos Fiber Sheet
81 19 05	N7030 (H)	VALFLON™(PTFE) Jacket Non-Asbestos Felt Sheet Thin stainless steel sheet VALQUAFOIL™ (expanded graphite) Sheet

N type**S type****H type**

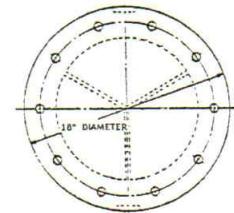
How to order: CODE

Gasket, envelope Valflon, VALQUA® N7030 (N) or (S) or (H), JIS, PRESSURE, NOMINAL DIAMETER

Hole Gaskets for Deck Opening

Juntas para Orificio

船倉孔用パッキン 塑鋼粘合剤



For deck opening holes on tankers. The available materials are non-asbestos, oil, vegetable oil, or oil-resistant rubber gaskets.

Guide of How to order:

When ordering, please specify the following points:

CODE 81 20 01
Name Hole gasket for deck opening
Material Oil resist rubber
Size O.D. x I.D. x Th 460 x 320 x 3.2 mm
Bolt Hole CirclexDiamxNo. 390 x 22 mm x 10 holes

Flange Gaskets

Juntas para Brida フランジガスケット 法兰衬垫

Two types of gaskets are available.



Ring gaskets which cover from the face of the flange to the inside edge of the bolts, and full face gaskets which cover the whole face of the flange including the bolt holes. These gaskets are made of either non-asbestos oil or vegetable oil. When ordering, specify the type of gasket (ring or full face), the pipe size and material, and the bolt hole number and size if required.

Guide of How to order:

CODE 81 21 01
Name Flange gasket
Type Full face
Pipe Size 100A
Material Vegetable oil

Full Face Flange Gaskets

Non-Asbestos

Juntas de Brida de Cara Completa Sin amianto
ノンアスベスト全面銅包みフランジガスケット
无石棉 全端面法兰垫片



Commonly used for high temperature requirement such as incinerators or funnels. Material is available from steel, copper, aluminium, or stainless steel. Please specify the material when ordering.

How to order: CODE

Gasket, flange, full face, SIZE, MATERIALS PRESSURE RATING

5 kgf/cm² - Thick 2.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 11	40A	49 x 120	81 18 16	100A	115 x 200
12	50A	61 x 130	17	125A	141 x 235
13	65A	84 x 155	18	150A	167 x 265
14	80A	90 x 180	19	175A	192 x 300
15	90A	102 x 190	20	200A	218 x 320

10 kgf/cm² - Thick 2.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 21	40A	49 x 140	81 18 26	100A	115 x 210
22	50A	61 x 155	27	125A	141 x 250
23	65A	84 x 175	28	150A	167 x 280
24	80A	90 x 185	29	175A	192 x 305
25	90A	102 x 195	30	200A	218 x 330

Soft Flange Gaskets

Non-Asbestos

Juntas blandas para bridas sin amianto
ノンアスベストソフトフランジガスケット
非石棉软法兰垫圈



Valqua V6500

Raised Face

内パッキン 内填料

5 kgf/cm² - Thick 1.5 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 51	15A	22 x 50	81 18 56	50A	61 x 93
52	20A	28 x 55	57	65A	84 x 118
53	25A	35 x 65	58	80A	90 x 129
54	32A	43 x 78	59	100A	115 x 149
55	40A	49 x 83	60	125A	141 x 184

10 kgf/cm² - Thick 1.5 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 61	15A	22 x 58	81 18 66	50A	61 x 104
62	20A	28 x 63	67	65A	84 x 124
63	25A	35 x 74	68	80A	90 x 134
64	32A	43 x 84	69	100A	115 x 159
65	40A	49 x 89	70	125A	141 x 190

Full Face

全面パッキン 全脸填料



5 kgf/cm² - Thick 1.5 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 71	15A	22 x 80	81 18 76	50A	61 x 130
72	20A	28 x 85	77	65A	84 x 155
73	25A	35 x 95	78	80A	90 x 180
74	32A	43 x 115	79	100A	115 x 200
75	40A	49 x 120	80	125A	141 x 235

10 kgf/cm² - Thick 1.5 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 18 81	15A	22 x 95	81 18 86	50A	61 x 155
82	20A	28 x 100	87	65A	84 x 175
83	25A	35 x 125	88	80A	90 x 185
84	32A	43 x 135	89	100A	115 x 210
85	40A	49 x 140	90	125A	141 x 250

Flange Soft Gaskets

Non-Asbestos

Juntas blandas para bridas sin amianto

ノンアスベストソフトフランジガスケット

非石棉软法兰垫圈



Valqua VC610

Raised Face

内パッキン 内填料

5 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 11	15A	22 x 50	81 19 18	80A	90 x 129
12	20A	28 x 55	19	100A	115 x 149
13	25A	35 x 65	20	125A	141 x 184
14	32A	43 x 78	21	150A	167 x 214
15	40A	49 x 83	22	200A	218 x 260
81 19 16	50A	61 x 93	81 19 23	250A	270 x 325
17	65A	84 x 118	24	300A	321 x 370

10 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 26	15A	22 x 58	81 19 33	80A	90 x 134
27	20A	28 x 63	34	100A	115 x 159
28	25A	35 x 74	35	125A	141 x 190
29	32A	43 x 84	36	150A	167 x 220
30	40A	49 x 89	37	200A	218 x 270
81 19 31	50A	61 x 104	81 19 38	250A	270 x 333
32	65A	84 x 124	39	300A	321 x 378

Full Face

全面パッキン 全脸填料



5 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 41	15A	22 x 80	81 19 48	80A	90 x 180
42	20A	28 x 85	49	100A	115 x 200
43	25A	35 x 95	50	125A	141 x 235
44	32A	43 x 115	51	150A	167 x 265
45	40A	49 x 120	52	200A	218 x 320
81 19 46	50A	61 x 130	81 19 53	250A	270 x 385
47	65A	84 x 155	54	300A	321 x 430

10 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 56	15A	22 x 95	81 19 63	80A	90 x 185
57	20A	28 x 100	64	100A	115 x 210
58	25A	35 x 125	65	125A	141 x 250
59	32A	43 x 135	66	150A	167 x 280
60	40A	49 x 140	67	200A	218 x 330
81 19 61	50A	61 x 155	81 19 68	250A	270 x 400
62	65A	84 x 175	69	300A	321 x 445

Soft Flange Gaskets

Juntas blandas para bridas

全面ソフトフランジガスケット 软法兰垫圈

EPDM (Ethylene-Propylene-Diene Methylene Linkage)

Raised Face

内パッキン 内填料

5 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 71	15A	22 x 50	81 19 77	65A	84 x 118
72	20A	28 x 55	78	80A	90 x 129
73	25A	35 x 65	79	100A	115 x 149
74	32A	43 x 78	80	125A	141 x 184
75	40A	49 x 83	81	150A	167 x 214
81 19 76	50A	61 x 93	81 19 82	200A	218 x 260

10 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 19 86	15A	22 x 58	81 19 92	65A	84 x 124
87	20A	28 x 63	93	80A	90 x 134
88	25A	35 x 74	94	100A	115 x 159
89	32A	43 x 84	95	125A	141 x 190
90	40A	49 x 89	96	150A	167 x 220
81 19 91	50A	61 x 104	81 19 97	200A	218 x 270



Full Face

全面パッキン 全脸填料

5 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 20 11	15A	22 x 80	81 20 17	65A	84 x 155
12	20A	28 x 85	18	80A	90 x 180
13	25A	35 x 95	19	100A	115 x 200
14	32A	43 x 115	20	125A	141 x 235
15	40A	49 x 120	21	150A	167 x 265
81 20 16	50A	61 x 130	81 20 22	200A	218 x 320

10 kgf/cm² - Thick 3.0 mm

Unit Per Pcs.

CODE	Nominal Size	I.D. x O.D. mm	CODE	Nominal Size	I.D. x O.D. mm
81 20 26	15A	22 x 95	81 20 32	65A	84 x 175
27	20A	28 x 100	33	80A	90 x 185
28	25A	35 x 125	34	100A	115 x 210
29	32A	43 x 135	35	125A	141 x 250
30	40A	49 x 140	36	150A	167 x 280
81 20 31	50A	61 x 155	81 20 37	200A	218 x 330

Application Table for Flange Gasket

	Water	Steam	Oil	Heavy Oil	Gas/Air	Strong Acid / Weak Acid	Weak Alkali
Victor	○	×	○	×	○	×	○
VC610	100°C	120°C	100°C	100°C	100°C	100°C	100°C
Valqua	○	×	○	×	○	×	○
V6500	100°C	120°C	100°C	100°C	100°C	100°C	100°C
EPDM	○	○	×	×	△	×	○
	100°C	120°C					120°C

Gasket Rings

Natural Nitrile Rubber with Boltholes

Anillos de empaquetadura de caucho de nitrilo natural con agujeros para pernos ボルト穴付き天然ニトリルゴムガスケット 带螺栓孔天然丁腈橡胶垫圈



Application: Hot and cold water and mild chemicals. Maximum temperature : 400°C. Maximum pressure : -0 bar 0°C - 100 bar. Maximum pressure and temperature depends on the thickness of the sheet and may not appear at the same time. All the jointings are asbestos free. Pressure : PN16. Temperature : 150°C. Thickness : 2 mm.

Full Face

Unit Per Pcs.

CODE	Nom Size	I.D. x O.D. mm	Bolt Hole (mm)		
			Pitch	No.	Hole
81 20 41	15	22 x 95	75	4	14
42	20	28 x 105	75	4	14
43	25	35 x 115	85	4	14
44	32	43 x 140	100	4	18
45	40	49 x 150	110	4	18
81 20 46	50	61 x 165	125	4	18
47	65	77 x 185	145	4	18
48	80	90 x 200	160	8	18
49	100	115 x 220	180	8	18
50	125	141 x 250	210	8	18
81 20 51	150	169 x 285	240	8	22
52	200	220 x 340	295	12	22
53	250	274 x 405	355	12	26
54	-	310 x 460	390	10	22
55	300	325 x 460	410	12	26
81 20 56	350	368 x 520	470	16	26
57	400	420 x 580	525	16	30
58	450	470 x 615	565	16	27
59	500	520 x 715	650	20	33
60	600	620 x 840	770	20	36

Name of Mfr. : Alligator

Gasket Rings

Natural Nitrile Rubber without Boltholes

Anillos de empaquetadura de caucho de nitrilo natural sin agujeros para pernos 穴なし天然ニトリルゴムガスケット 无螺栓孔天然丁腈橡胶垫圈



Maximum temperature: 400°C. Maximum pressure: -0 bar 0°C - 100 bar. Maximum pressure and temperature depends on the thickness of the sheet and may not appear at the same time. All the jointings are asbestos free.

Pressure : PN16.

Application: Hot and cold water and mild chemicals.

Raised Face, Thickness: 2 mm. Temperature: 150°C.

Unit Per Pcs.

CODE	Nom Size	I.D. x O.D. mm	CODE	Nom Size	I.D. x O.D. mm
81 20 61	350	368 x 445	81 20 64	500	520 x 618
62	400	420 x 497	65	600	620 x 735
63	450	470 x 557	66	650	670 x 750

Name of Mfr. : Alligator

Application: High pressure steam

Raised Face, Thickness: 3 mm

Unit Per Pcs.

CODE	Nom Size	I.D. x O.D. mm	CODE	Nom Size	I.D. x O.D. mm
81 20 67	350	368 x 445	81 20 70	500	520 x 618
68	400	420 x 497	71	600	620 x 735
69	450	470 x 557	-	-	-

Name of Mfr. : Alligator

Graphited Gasket Rings

Without Boltholes

Anillos de empaquetadura grafitados con agujeros para pernos
穴無しグラファイトガスケットリング 无螺栓孔石墨垫圈

An asbestos free jointing with both sides graphite.



Application: High pressure. Maximum temperature: 400°C. Pressure: PN16.

Maximum pressure: - 0 bar 0°C - 100 bar.

Maximum pressure and temperature depends on the thickness of the sheet and may not appear at the same time.
Thickness: 2 mm.

Unit Per Pcs.

CODE	Nom Size	I.D. x O.D. mm	CODE	Nom Size	I.D. x O.D. mm
81 20 72	15	22 x 50	81 20 78	80	90 x 142
73	20	28 x 60	79	100	115 x 162
74	32	43 x 82	80	125	141 x 192
75	40	49 x 92	81	150	169 x 218
76	50	61 x 107	82	200	220 x 273
81 20 77	65	77 x 127			

Name of Mfr.: Alligator - Model PA700

Carbon Cloth Gloves

Guanetes de Tela de Carbono カーボンクロスグローブ 碳布手套

These carbon cloth gloves provide a protective barrier against fire, heat, etc. The fist is manufactured with a separated thumb. Overall length is 350 mm.



81 15 86 Gloves, carbon cloth, two divided Pr.

Ceramic Spinning & Textiles

Hilados y Textiles de Cerámica

超高温用セラミック紡織品 超高温用纺织品

Made of 85 % ceramic fiber and 15 % organic fiber. Ceramic fiber is made from Alumina and Silica. The maximum temperature breakdown per reinforcement used is as follows.

Reinforcement	Glass	Stainless Wire	Nickel Chrome
Temperature	400°C	800°C	1,100°C

Ceramic Cloths

Telas de Carbono セラミッククロス 石墨纤维



How to order: CODE

Ceramic cloth, KIND of REINFORCEMENT,
THICKNESS x WIDTH mm

Unit Per Mtr.

CODE	Reinforcement	Size mm		Maximum Temperature
		Thick	Width	
81 16 01	Glass	2	1,000	400°C
02		3	1,000	
81 16 03	Stainless Wire	2	1,000	800°C
04		3	1,000	
81 16 05	Nickel Chrome Wire	2	1,000	1,100°C
06		3	1,000	

Ceramic Yarn

Cordón de Carbono セラミックヤーン 碳化纤维线



How to order: CODE

Ceramic yarn, KIND of REINFORCEMENT, DIAM mm

CODE	Reinforcement	Actual Dia. mm	Weight		Maximum Temperature
			g/m	/roll	
81 16 11	Glass	1.0	1.10	1 kg	400°C
12		1.5	1.64	1 kg	
81 16 13	Stainless Wire	1.0	1.10	1 kg	800°C
14		1.5	1.64	1 kg	
81 16 15	Nickel Chrome	1.0	1.12	1 kg	1,100°C
16	Wire	1.5	1.66	1 kg	

Ceramic Yarn Rope

Burlete de Cerámica セラミックヤーンロープ

陶质线绳



Unit Per Rls.

CODE	Diameter mm	Length mtr/roll	Weight kg/roll
81 16 21	4.0	150	1.0
22	6.5	58	1.0
23	9.6	27	1.0
24	12.5	30	1.9
25	16.0	30	3.0
81 16 26	19.0	30	4.1
27	25.0	30	7.1
28	30.0	15	5.1
29	40.0	15	9.1
30	50.0	15	14.0

Ceramic Twist Rope

Cuerda Trenzada de Cerámica

セラミックツイストロープ 陶质扭编绳



Unit Per Rls.

CODE	Diameter mm	Length mtr/roll	Weight kg/roll
81 16 31	9.6	30	1.2
32	12.5	30	2.0
33	16.0	30	3.3
34	19.0	30	4.4
35	25.0	30	7.7
81 16 36	30.0	15	5.5
37	40.0	15	10.2
38	50.0	15	15.3

Ceramic Soft Rope

Cuerda de Cerámica

セラミックソフトロープ 陶质软绳



How to order: CODE

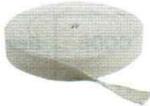
Ceramic soft rope, KIND of WRAPPING, DIAM mm

Unit Per Rls.

CODE	Diameter mm	Length mtr/roll	Weight kg/roll	
			Wrapped by Glass Yarn	
81 16 41	15	30		2.5
42	20	30		3.6
43	25	30		4.5
44	30	30		6.2
45	50	15		8.4
Wrapped by Stainless Wire				
81 16 46	15	30		2.1
47	20	30		3.3
48	25	30		4.4
49	30	30		6.1
50	50	15		8.1

Ceramic Ribbons

Cintas de Cerámica セラミックリボン 纱布

**How to order: CODE**

Ceramic ribbon, KIND of REINFORCEMENT, THICKNESS x WIDTH mm

CODE	Reinforcement	Size T mm x W mm x L mtr	Weight kg/roll	Unit Per Rls.	
				Maximum Temperature	
81 16 51	Glass	2 x 25 x 30	0.9	400°C	
		2 x 50 x 30	1.8		
		2 x 75 x 30	2.7		
		3 x 25 x 30	1.3		
		3 x 50 x 30	2.6		
		3 x 75 x 30	3.9		
81 16 57	Stainless wire	2 x 25 x 30	0.9	800°C	
		2 x 50 x 30	1.8		
		2 x 75 x 30	2.7		
		3 x 25 x 30	1.3		
		3 x 50 x 30	2.6		
		3 x 75 x 30	3.9		
81 16 63	Nickel chrome wire	2 x 25 x 30	0.9	1,100°C	
		2 x 50 x 30	1.8		
		2 x 75 x 30	2.7		
		3 x 25 x 30	1.3		
		3 x 50 x 30	2.6		
		3 x 75 x 30	3.9		

Ceramic Fiber Blanket Sheets

Manta de Fibra de Cerámica

セラミックファイバーブランケットシート

陶瓷纤维垫



Ceramic fiber blanket made from the purest of raw materials. Which are electromelted, air-brown at high speed and fiberized. Light in weight and soft to the touch, ceramic fiber blanket has various application with excellent refractory and insulating properties. Suitable for sealing, filtering, and reinforcing of various composites.

Typical Application:

Furnace linings, heat seals, packing, fire protection, noise reduction, filter material.

General Properties

Max. Service Temperature	1,260°C (2,300°F)
Melting Point	1,760°C
Fiber Diameter (μm)	2.8
Fiber Length (mm)	250
Specific Gravity	2.6
Chemical Analysis	Al ₂ O ₃ : 47.1% SiO ₂ : 52.3%

Unit Per Shrt.

CODE	Size	
	Thick	W x L
81 16 71	6	600 x 7,200
72	12.5	600 x 7,200
73	25	600 x 7,200
74	30	600 x 3,600

Glass Fibre Spinning & Textiles

Hilados y Textiles de Fibra de Vidrio

グラスファイバー紡織品 玻璃纤维纺织品

Made with glass fibre and organic fibre spun to staple yarn.

**Glass Cloths**

Telas de Vidrio ガラスクロス 玻璃纤维布

Unit Per Mtr

CODE	Thickness mm	Width mm	Weight (g/m ²)
81 17 01	1.3	1,000	850
	1.7	1,000	1,000
	3.0	1,000	2,000

Glass Tapes

Cintas de Vidrio ガラステープ 玻璃丝带



Unit Per Rls.

CODE	Thickness mm	Width mm	Length mtr	Weight kg/roll
81 17 10	1.7	38	30	1.1
81 17 11	1.3	50	30	1.2
	1.7			1.5
81 17 14	1.7	75	30	2.5
81 17 15	1.7	100	30	3.2

Glass Duct Packings

Cinta Aislamiento de Fibra de Vidrio

ガラスダクトパッキン 玻璃纤维盼更



Made with glass fiber cloth and tape for use as duct packing. With holes of 100 mm pitch and one side paper seal. Packing without holes may be supplied upon request.

Unit Per Rls.

CODE	Thickness x Width x Length mm mm mtr	Weight kg/roll
81 17 21	1.7 x 25 x 30	0.7
	1.7 x 32 x 30	0.8
	1.7 x 38 x 30	0.9
81 17 24	3.0 x 25 x 15	0.6
	3.0 x 32 x 15	0.7
	3.0 x 38 x 15	0.8

Glass Packings for Fireproof Door

Juntas de cristal para puertas cortafuegos

耐火ドア用ガラスドアパッキン 用于防火门的玻璃门垫圈



Tape

Packing

Unit Per Mtr

CODE	Type	Size	Unit
81 17 27	Tape	W 15mm x T 3 mm x 30 mtr	Rls. Rls.
		W 25mm x T 3 mm x 30 mtr	Rls. Rls.
81 17 29	Packing	Dia 15 mm x 30 mtr	Rls. Rls.
		Dia 25 mm x 30 mtr	Rls. Rls.

Glass Wool Mats

Alfombra de Lana de Vidrio ガラスウールマット 玻璃羊毛垫



Felt type made by a needle punch method without using any adhesive binder.

Unit Per Rls.

CODE	Thickness x Width x Length mm mm mm	Weight g/m ²
81 17 31	3 x 1,000 x 30	300
	5 x 1,000 x 30	500
	6 x 1,000 x 25	600
	8 x 1,000 x 20	800
	10 x 1,000 x 20	1,000
81 17 36	15 x 1,000 x 10	2,000
	20 x 1,000 x 10	3,000

Glass Wool

Lana de Vidrio ガラスウール 玻璃棉



Made from yarn with the process of making glass wool mat by a needle punch method.
Maximum temperature: 600°C.

81 17 41

Glass Wool

Kgs

Carbonized Fibre Spinning & Textiles

Hilados y Textiles de Fibra Carbonizada

耐炎炭化纖維紡織品 碳化纤维纺织品

Made from a chemical called PAN (Polyacrylo Nitril) by special heat treatment. It is very flexible and has excellent heat resistance.

Carbon Cloths

Telas de Carbono

カーボンクロス

石墨纤维



Unit Per Rls.

CODE	Thickness (mm) × Width (mm) × Length (mm)
81 17 51	1.0 × 1,000 × 30
52	2.0 × 1,000 × 30

Carbon Yarns

Cordón de Carbono

カーボンヤーン

碳化纤维线



Unit Per Rls.

CODE	Thickness mm	Weight kg/roll
81 17 61	9.5	1.0
62	16.0	2.5
63	22.0	2.5

Carbon Tapes

Cintas de Carbono

カーボンテープ

碳化纤维带



Unit Per Rls.

CODE	Thickness (mm) × Width (mm) × Length (mm)
81 17 71	1.0 × 25 × 30
72	1.0 × 50 × 30
73	1.0 × 75 × 30
81 17 74	2.0 × 25 × 30
75	2.0 × 50 × 30
76	2.0 × 75 × 30

Non-asbestos Brake Linings

Ferodo con Tejida sin Amianto

ノンアスベストブレーキライニング

非石棉刹车片



High quality lining made of special non asbestos heat-resistant tightly woven fabric, brass wire reinforced, impregnated with oil-resistant, wear-proof and heat resistant synthetic resin, finished to prescribed size of roll, generally from 5 to 25 mm thick, 25 mm to 300 mm width and 20 mtr long.

Application:

For large capacity / floating winch / crane, windlass, heavy industrial machines, dredger.

Asbestos Free #1350-WS (from FB Industrial)

A tough-heavy duty asbestos zero material with a high degree of flexibility & long life. Developed for use of resistance to heat, oil, abrasion and withdurability, and has stable coefficient of friction for a long period.

Asbestos Free Uni Tex No.8000 (from Wakasugi)

Service: For heavy duty brake lining such as windlass and winches.

Material: Woven brake lining with recent non-asbestos fibres and brass wire, and treated with special chemicals.

81 16 76	Brake lining, non-asbestos, SIZE, THICKNESS × WIDTH × LENGTH
----------	---

Mtr.

Metal-filled Epoxyes

Cemento epóxido con Metales

メタルエポキシ樹脂 含金属树脂

Loctite® Aluminium Liquid

Aluminio Líquido アルミニウムパテ 液状タイプ

铝液

Aluminium filled, pourable and self-leveling, steel-filled epoxy. Ideal for casting or making molds. Works well to fill hard-to-reach areas. Can be machined when cured. Sets in 25 minutes. Typical applications include filling or leveling equipment, pouring molds, parts, and fixtures, making aluminium forming dies, casting aluminium parts.



CODE	Contents	Unit
81 21 76	1 lb	Set

**Loctite® PC7254
(3475 Aluminium Putty)**

Masilla de Aluminio アルミニウムパテ 铝油灰

Two-part epoxy system heavily reinforced with aluminium powder. Ideal for repairing aluminium parts under typical dry service temperatures to +93°C (+200°F), or where aluminium finish is desired. Use in repairing aluminium castings, repairing worn aluminium parts, making models and jigs for holding odd shaped parts, making aluminium dies.



CODE	Contents	Unit
81 21 77	1 lb	Set

**Loctite® EA3476
(Stainless Steel Putty)**

Masilla de Acero Inoxidable ステンレススチールパテ 不锈钢油灰

Stainless steel filled two-part epoxy. Repairs stainless steel parts on applications where a stainless steel finish is desired under typical dry service temperatures to +107°C (+225°F). Once hardened it can be machined, drilled, tapped or filed just like the original metal. Typical applications are renewing stainless steel pumps, rebuilding stainless steel shafts, resurfacing stainless steel equipment, repairing stainless steel castings, making stainless steel molds.



CODE	Contents	Unit
81 21 78	1 lb	Set

**Loctite® EA3472
(3472 Steel Liquid)**

Líquido de Acero スティールリキッド (液状タイプ) 钢液

Two-part pourable epoxy system heavily reinforced with steel powder for casting parts or filling voids under typical dry service temperatures to +107°C (+225°F). Once hardened it can be machined, drilled, tapped or filled just like steel. Rebuilds worn parts fast, reduces downtime, high steel content-cures to a steel-like finish, superior adhesion-form a solid bond to steel, cast iron, stainless steel, concrete, and clean and abraded bronze, copper, and aluminium.



CODE	Contents	Colour	Unit
81 21 79	1 lb	Grey	Set
81 21 80	4 lb		

Loctite® EA3471 (3471 Steel Putty)

Masilla de Acero Inoxidable スティールパテ 不锈钢油灰

Steel reinforced, two-part epoxy that cures to a metal-like finish and can be machined, drilled, tapped or filed under typical dry service temperatures to +107°C (+225°F). Typical applications are sealing cracked castings, tanks, vessels, and valves, patching non-structural defects in steel castings, making models and jigs for holding odds shaped parts, making metal dies, resurfacing worn air seals, and filling cavitated areas.



CODE	Contents	Colour	Unit
81 21 81	1 lb	Grey	Set
81 21 82	4 lb		

**Loctite® PC7290
(3474 Wear Resistant Putty)**

Masilla Resistente al Desgaste 耐磨耗バテ 耐磨腻子

Ceramic fibers give this trowelable putty excellent wear and abrasion resistant properties under typical dry service temperature to +107°C (+225°F). Provides smooth, low friction finish for equipment exposed to wear, erosion, and cavitation. Typical applications are filling cavitation, providing protective coating in or on: pipes, pumps, elbows, transitions, butterfly valves, deflection plates, turbine blades, and tanks.



CODE	Contents	Colour	Unit
81 21 83	1 lb	Grey	Set
81 21 84	3 lb		

Loctite® (3478 Superior Metal)

Superior Metal スーペリア・メタル 高级金属

Non-rusting, ferro-silicone-filled epoxy. Extremely high compressive strength and wear resistance. Ideal for rebuilding worn surfaces exposed to harsh environments. Can be machined, drilled and tapped in 6-8 hours. For final finish cuts, let the product cure for 24 hours and use carbide tooling. Spreadable putty. Sets in 20 minutes.



CODE	Contents	Colour	Unit
81 21 85	1 lb	Grey	Set
81 21 86	4 kg		

**Loctite®
(3463 Metal Magic Steel)**

Metal Magic Acero

メタルマジックスチール (10 分硬化補修エポキシバテ) 金属魔术钢



Steel epoxy in stick form. Cut off a section, knead and apply to leaking pipes or damaged equipment. Cures in 10 minutes. National Science Foundation (NSF) approved, standard 61.

CODE	Contents	Colour	Unit
81 21 90	50 grm	Grey	Pc.
81 21 91	113 grm		

**Loctite® EA9480
(Underwater Repair Epoxy)**

Epoxi de Reparación Subacuática

アンダーウォーターリペア (耐水性エポキシバテ) 水下修复环氧树脂

This putty-like materials is ideal for plumbing, irrigation, and marine applications because it is unaffected by chlorinated or salt water. Ideally suited for underwater repairs. Sets in 15 minutes.



CODE	Contents	Colour	Unit
81 21 93	113 grm		Pc.

**Loctite® EA3473
(3473 Fast Set Steel Putty)**

Masilla de Acero de Fraguado Rápido

ファストセットスチールバテ 速凝钢腻子

Set in 3 minutes, steel reinforced, two-part epoxy designed for making fast and durable repairs to a variety of metals. This product is typically used in applications with maximum temperature +93°C (200°F). Typical applications include fuel and gas tank holes, stripped threads, cracked battery cases, leaking storage tanks, and leaks on pipes and elbows.



CODE	Contents	Colour	Unit
81 21 99	1 lb	Grey	Set

General Repair Products**Loctite®**

Productos para reparaciones generales 一般補修剤 一般修补剂



Unit Per Pcs.

CODE	Contents	Type	Colour	Description
81 21 51 52	24 ml 50 ml	Loctite® EA 3430 General Purpose Epoxy Adhesive	Ultra clear	General purpose, high-strength, ultra clear five-minute epoxy suitable for all applications requiring optically clear bond lines; toughened; water resistant; medium viscosity.
81 21 53	3 grm	Loctite® Double Bubble Epoxy Adhesive	Clear	Very fast (3 min.) multi purpose epoxy; ideal for small and quick repairs; easy to use: just burst plastic pouches and mix product.
81 21 54	50 ml	Loctite® AA 3295 Acrylic Adhesive	Green	General purpose 2K acrylic adhesive; good impact resistance, particularly suitable to bond metals, ceramics and plastics; convenient dispensing via static mixing nozzle from cartridge.

(to be continued)

CODE	Contents	Type	Colour	Description
81 21 55	50 ml	Loctite® SI 5970 Oil Resistant Silicone Sealant	Black	Versatile 1-component silicone with very good oil resistance; neutral curing.
81 21 56	300 ml			
81 21 57	1 kgs can	TEROSON RB IX Sealing Butyl		Kneadable, slightly tacky sealing materials; used for sealing, spacing and sound insulation; very good water and aging resistance; can be overpainted.
81 21 58	10 kg pack with 40 gm bars		Grey	
81 21 59	30 ml	Terostat 81 Butyl Sealing Tape	Black	High quality sealing tape; high tackiness and self-welding; very good water and aging resistance; no corrosive constituents. Standard size: 20 mm x 2 mm x 30 m; other sizes upon request.
81 21 60	310 ml	TEROSON RB 2759 Sealing Butyl	Grey	High quality butyl rubber-based sealant; aging- and weather-resistant material; low solvent content.
81 21 61	310 ml	TEROSON MS 939 Elastic Bonding Adhesive	White	General purpose elastic bonding adhesive; high strength, good elasticity.
81 21 62			Grey	
81 21 63			Black	
81 21 64	50 ml	TEROSON MS 9399 Rapid Curing Elastic Bonding Adhesive	White	Universal and easy to handle 2K repair adhesive with high initial strength, short tack-free time and good elasticity.
81 21 65	400 ml			

Fix and Repair Tapes**TEROSON VR5080(Loctite® 5080)**

Cinta de arreglo y reparación 固定・補修テープ 固定 / 修补带



Fabric reinforced emergency repair tape; easy to tear by hand; for repairing, reinforcing, fixing, sealing and protecting; pressure resistance up to 4 bar (pipe leakage).

Unit Per Rls.

CODE	Length	Colour
81 21 68	25 mtr	
81 21 69	50 mtr	Grey

Loctite® 5070 Pipe Repair Kits

Equipo de reparación de tuberías

パイブリペアーキット 管道维修套组



No tools required, cures in 30 minutes. Easy-to-use pipe repair kit. Use for temporary and medium term repair of leaking pipes, and reinforcement of weak areas. Urethane impregnated fiberglass tape, activated by water, for reliable, temporary repairs of metal, plastic, and composite pipes. Kit contains Fixmaster Metal Magic Steel epoxy stick, urethane impregnated fiberglass tape, and gloves. Cures in 30 minutes. The maximum temperature resistance is +121°C(+250°F). Yellow color is available. Typical application include sealing cracked castings, tanks, vessels, valves and pipes. It also repairs pipe joints and reinforces tanks, vessels, valves, joints and elbows.

Unit Per Set

CODE	Width×Length mm	CODE	Width×Length mm
81 21 73	50 mm × 1,800 mm	81 21 74	100 mm × 3,600 mm

Loctite® 5075 Insulating and Sealing Wraps

Envoltura de aislamiento y sellado シーリングラップ 隔离 / 密封膜

Non-sticky, self fusing multipurpose wrap withstands extreme conditions. When stretched and wrapped around a surface, it fuses to itself and instantly seals and protects the area against air leakage, water leakage, corrosion and scratches. This innovative wrap contains no adhesives.



Unit Per Rls.

CODE	Size	Colour
81 21 75	4.27 m (width: 2.5 cm)	Red

Loctite® MR Flex80 Putty

Masilla Loctite Fixmaster Flex80 フレックス 80 パテ Flex80 结合剂

Combine the properties of rubber and urethane in a trowelable repair compound. It is ideal for repairing metal, rubber, and urethane surfaces that are subject to wear and impact. Typical applications include pipe elbows, pump liners, pulleys, conveyor belts, rubber and urethane parts or sheeting, and couplings. This product is typically used in applications with an maximum temperature +82°C (+180°F).



81

CODE	Contents	Colour	Unit
81 21 87	1 lb		
81 21 88	6 lb	Black	Set

Loctite® EA 9017 (Poxy Pak Fast Cure Epoxy)

Epoxy de cura rápida Loctite Fixmaster

即効エポキシー 速效环氧树脂胶

Two component, room temperature curing epoxy adhesive used for high strength, permanent bonding of metals, ceramics, concrete, wood, glass and most plastics. It will also fill or seal cracks and rebuild worn surfaces. Comes in a 1 oz. syringe with a built-in plunger for easy dispensing without equipment. This product can withstand temperatures up to +149°C (+300°F).



CODE	Content	Unit
81 21 98	1 oz	Pc.

ThistleBond Products

Productos "Thistlebond" シスルボンド製品 ThistleBond 产品

ThistleBond Repair Kits

Containing all the necessary materials and accessories which enable an epoxide resin/glass fabric ThistleBond Resin Laminate to be produced.

Engineering "A" Kit

This kit contains a specially selected range of high performance laminate, adhesive and engineering repair products.



Contents

20	UPS 19000 RH Standard Resin & Hardener 225 gms
1	UPS 19003 A&B Cement 1 kg
2	UPS 120 XFF Fast Curing Metal Fluid 200 grm
1	UPS 19060 SG Stick Grade Metal 125 grm
1	UPS 19060 SGUW Underwater Stick Grade Metal 125 gm
1	UPS 19601 PR Pipe Repair Bandage 50 mm x 1.8 m
2	Glass Mat 0.5 m
2	Sealer Filler 50 grm
1	Fairing Compound 50 grm
1	Masking Tape Roll
1	Polyurethane Sheet 2 m ²
2	UPS 19007 GT Glass Tape 50 mm x 50 m
1	Resin Removing Cream 100 grm
2	Cellophane 250 mm x 25 m
1	Green Contour Cloth 250 mm x 250 mm
3	Linen Scrim 0.5 m ²
3	Glass Cloth 1 m ²
10	Disposable Gloves
1	Scissors
3	Brush 1" Width
10	Stirring Tool
1	Metal Applicator Tool
10	UPS 9916 Plastic Spatula
1	Detailed Application Booklet

81 22 35	ThistleBond Engineering "A" Kit complete, UPS11000	Set
81 22 37	ThistleBond Top Up "C" Kit complete, UPS13000	"
33 02 87	ThistleBond LBRK Lifeboat Repair Kit complete UPS17000	"

Small Pipe Repair Kits

Kits de Reparación de Tuberías Pequeñas

パイプ補修キット 小型管道修理工具包

Designed to put all products required to carry out emergency repairs to leaking pipework. By utilizing Pipe Repair Bandage, immediate and cost effective repairs can be carried out, and surface preparation is at a minimum due to the surface tolerant characteristics of Bandage. The end result can offer long term protection at a working temperature of 270°C and at pressures ranging from 10 bar (150psi) through to 27 bar (400psi) if used in conjunction with "Stick Grade Metal"(Code 812202) and a double wrap.



Contents :

5 units	"Pipe Repair Bandage" W50mm x L1.8mtr
1 unit	"Stick Grade Metal"
5 pairs	Disposable gloves
1 vol	Mixing and application instructions packaged in a robust plastic container (which serves as a water bucket)

81 23 67	ThistleBond Small Pipe Repair Kit UPS19500	Set
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ThistleBond SG Stick Grade Metal

SG Stick Grade Metal

SG スティックグレードメタル SG 棒級金属

A specially packaged rapid curing synthetic metal repair compound for onsite repairs to metal components such as leaking pipes, tanks, ducts, radiators, etc.



81 22 02	ThistleBond SG Stick Grade Metal, 125 grm x 10, UPS 19060 SG	Pc.
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ThistleBond EG Metal Repair Paste

EG Pasta reparadora de metales

EG メタルリペアペースト EG 金属修补膏

A high performance multi-purpose synthetic metal repair compound specially developed for metal repairs requiring excellent mechanical strength combined with easy machining properties.



81 22 11	ThistleBond EG Metal Repair Paste, 1 kgs / Unit UPS 105 EG	Set
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ThistleBond RH Standard Resin & Hardener

Resina y Endurecedor Estándar RH

RH スタンダードレジン&ハードナー

RH 标准树脂和固化剂

A high performance, solvent free epoxy system designed for onsite



repairs to metal, wood, glass and synthetic materials. Excellent adhesion to both blast cleaned and mechanically prepared surfaces, excellent corrosion resistance even under seawater, unaffected by short term contact with industrial chemicals. Suitable for use up to 100°C (212°F) dry heat.

81 22 16	ThistleBond RH Standard Resin & Hardener, 225 gm x 10, UPS19000 RH	Set
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ThistleBond GT Glass Tapes

Cintas de Vidrio GT ガラステープ
GT 玻璃纤维胶带

A high performance unique braided Glass Fibre Tape that, when used in conjunction with the UPS 19000 RH (Code 812216) offers the ultimate in both Leak Sealing and Pipe Protection.



81 22 23	ThistleBond GT Glass Tape, 50 mm x 50 mtr, UPS 19007 GT	Rls.
81 22 25	ThistleBond GT Glass Tape, 100 mm x 50 mtr, UPS 19009 GT	"

ThistleBond A & B Cement

Cemento A & B A & Bセメント A & B 水泥公司

A high performance, two pack, solvent free epoxy repair system for use on metallic surfaces. Ideal for application where only minimal surface preparation can be carried out and is usually used in conjunction with RH Standard Resin & Hardener (Code 812216). Suitable for rebuilding corrosion pitting on metallic structures and in particular, as a fairing compound on pipework prior to wrapping with the RH Pipe Repair System.



81 22 31	ThistleBond A & B Cement, 1 kgs UPS 19003	Set
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Devcon Products

Productos "Devcon" デブコン製品 Devcon 产品

Precision Repair Epoxy

Devcon Titanium Putty

Masilla de Titánio

チタニウムパテ 钛油灰

Titanium-reinforced epoxy putty for making repairs that can be precision machined. Provides excellent temperature resistance, high compressive strength and unmatched resistance to a broad range of chemicals and acids.

- Resistance to chemicals and most acids, bases, solvents, and alkalis.
- Temperature resistance to 350°F.
- High compressive strength (18,800 psi).



81 22 41	Devcon Titanium putty, 1 lb / unit	Set
42	Devcon Titanium putty, 2 lb / unit	"

Devcon HR SUPER 3000

Devcon HR Super 3000 HR スーパー 3000

得复康 HR 超级 3000

Provides excellent temperature resistance with continuous service



temperatures (200-220°C) and maximum temperature (300°C). Enhances strength when used with enclosed glass tape under high temperature and pressures. Ideal for emergency repairs as cures in a few minutes at over 100°C. Trowelable and bonds to most metals.

81 22 43	Devcon HR Super 3000, 500 gm / unit	Set
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Emergency Repair Epoxy

Devcon Underwater Repair Putty (UW)

Devcon UW, Masilla Reparadora para Bajo Agua

ウェットサーフェイスリペア UW 水下修理用封泥 UW

For repairing, patching and rebuilding equipment in habitually wet environments, even underwater.



- Bonds to steel, iron, aluminium, brass, bronze, concrete, wood, and plastics.
- Penetrates moisture; eliminates the need to dry substrates thoroughly before repairs.
- Cures at temperatures down to 40°F.

81 22 46	Devcon Underwater repair putty UW, 1 lb/unit	Set
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Rubber Repair and Casting Urethanes

Devcon Flexane 80 Putty or Liquid

Devcon Flexane 80, Masilla o líquido

デブコンフレクサン 80P 橡胶制品修理用封泥 80P

Putty:

Trowelable 100 % solid urethane compound. Easy to mix and cures to tough, medium-hard rubber for a broad range of lining and protection applications. Withstands continuous service temperatures up to 180°F (dry environments) and 120°F (wet environments). Bonds to metal, concrete, rubber, wood and fiberglass.



Liquid:

Castable, non-shrinking, medium-viscosity urethane compound for making rugged, flexible molds, forming dies, cast parts and non-scratching holding fixtures, as well as abrasion and noise-resistant linings and encapsulating parts. Mixes and pours easily and cures at room temperature to a semi-rigid rubber material.

- Mixes easily and trowels on smoothly.
- Cures to a tough medium-hard rubber (Shore A 87).
- Service temperatures to 180°F dry / 120°F wet.
- Flexane Primers are recommended for maximum adhesion to metal, rubber, and concrete surfaces.

81 22 48	Devcon Flexane 80 putty 1 lb / unit	Set
49	Devcon Flexane 80 Liquid 1 lb / unit	"

General Repair Epoxies

Devcon Plastic Steel Putty (A)

Devcon (A), Masilla para Plástico-Acero

プラスチックスチールパテ デブコン A 塑钢泥 (A)

Metal filled epoxy putty used for routine maintenance, production, and tooling applications.



Bonds to most metal, concrete and some plastics and is ideal for patching and repairing areas where welding would be undesirable or impossible.

- Bonds to most metals, concrete, and some plastics.
- Cures at room temperature.

- Can be drilled, tapped, machine, water, and chemicals.
- Ideal for patching and repairing areas where welding or brazing would be undesirable or impossible.

81 22 51	Devcon Plastic steel A, 1 lb/unit	Set
52	Devcon Plastic steel A, 4 lb/unit	"

Devcon Plastic Steel Liquid (B)

Devcon (B), Liquido para Plástico-Acero
プラスチックスチールリキッドデブコン B 塑料 钢铁 液体

Steel-filled liquid epoxy with the performance properties of Plastic Steel Putty (A). Can be cast over models for accurate detail reproduction when making holding fixtures, light-gauge forming dies and molds. Hardens in about an hour. Hardens in about an hour.

- Hardens in about an hour.
- High compressive strength.
- Machinable to close tolerances.
- Low viscosity makes it an ideal leveling compound for machinery and equipment.



81 22 56	Devcon Plastic steel B, 1 lb/unit	Set
57	Devcon Plastic steel B, 4 lb/unit	"

81

Packing & Joining

Devcon Plastic Steel 5-minute Putty (SF)

Devcon (SF), Masilla para Plástico-Acero 5 minutos
プラスチックスチール 5 ミニッピタ SF 塑钢油灰 5 分钟

Fast-curing, steel-filled epoxy for dependable emergency repairs in less than 1 hour. Cures to a tough, steel-filled material that can be machined, drilled, tapped or sanded.

- Cure in less than 1 hour.
- Tough, steel-filled material can be machined, drilled, tapped, or sanded.



81 22 62	Devcon Plastic steel SF, 1 lb/unit	Set
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Devcon Aluminium Putty (F)

Devcon (F), Masilla para Aluminio
アルミニウムバテデブコン F 铝灰泥 (F)

Aluminium-filled epoxy putty for dependable non-rusting repairs to aluminium castings, machinery and equipment. Bonds to aluminium and other metals. Can be machined, drilled or tapped.

- Repairs air conditioning system components.
- Excellent resistance to chlorofluorocarbons.
- Bonds to aluminium and many other metals.
- Fills porosity in aluminium castings.
- Can be machined, drilled or tapped using conventional metalworking tools.



81 22 66	Devcon Aluminium putty F, 1 lb/unit	Set
67	Devcon Aluminium putty F, 3 lb/unit	"

Devcon Aluminium Liquid (F-2)

Devcon (F-2), Liquido para Aluminio
アルミニウムリキッドデブコン F2 铝液 (F-2)

Aluminium-filled pourable epoxy for molds, patterns, holding fixtures and cosmetic casting repairs. Cures just over 1 hour.

- Can be machined, drilled, or tapped.
- Low viscosity provides accurate reproduction of mold details and of delicate or intricate parts.



81 22 71	Devcon Aluminium Liquid F-2, 1 lb/unit	Set
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Devcon Wear Resistant Putty (WR)

Devcon (WR), Liquido Resistente al Desgaste
ウェアーレジスタントリキッドデブコン WR

耐磨腻子 WR

High wear-resistant, self-lubricating compound for repairs requiring smooth surfaces against sliding wear.

Non-shrinking liquid used for building up metal shafts and pumps, making bearings and general repairs. Also ideal for making metal-forming dies and duplicating masters. Cures to a smooth surface.

- Bonds to steel, iron, aluminium, ceramic, concrete, brass, and some plastics.
- Contains wear-resistant fillers for low-friction applications.



81 22 81	Devcon Wear Resistant WR, 500 g / unit	Set
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Devcon Wear Resistant Putty (WR-2)

Devcon (WR2), Liquido Resistente al Desgaste
ウェアーレジスタントリキッドデブコン WR2

耐磨腻子 WR2

Smooth, non-rusting, all purpose epoxy putty for repairs requiring low friction finishes, excellent wear resistance and protection from bimetallic corrosion.

Bonds to steel, iron, aluminium, ceramics, concrete, brass, and some plastics.

- Bonds to steel, iron, aluminium, ceramic, concrete, brass, and some plastics.
- Contains wear-resistant fillers for low-friction applications.



81 22 86	Devcon Wear Resistant WR-2, 1 lb/unit	Set
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Devcon Bronze Putty (BR)

Devcon (BR), Masilla para Bronce
ブロンズバテデブコン BR 青铜泥 (BR)

Bronze-filled epoxy putty for repairing bronze and brass bushings, shafts, castings and equipment parts. Ideal for repairing and rebuilding areas where brazing would be undesirable or impossible.

- Repairs and rebuilds areas where brazing would be undesirable or impossible.
- Bonds securely to bronze alloys, brass, copper and ferrous metals.



81 22 90	Devcon Bronze putty BR, 1 lb/unit	Set
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Devcon Stainless Steel Putty (ST)

Devcon (ST), Masilla para Acero Inoxidable
ステンレススチールバテデブコン ST 不锈钢油灰 (ST)

Stainless steel-filled epoxy putty, ideal for patching, repairing and rebuilding stainless steel food processing equipment. It is non-rusting and bonds to ferrous and non-ferrous metals.

- Bonds to ferrous and nonferrous metals.
- Nonrusting.
- NSF certified for potable water applications and acceptable for use in meat and poultry plants.



81 22 92	Devcon Stainless steel putty ST, 1 lb/unit	Set
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Devcon Magic Bond (cures in 12 hours at 25°C)

Devcon Magic Bond (Pegamento Mágico)
デブコンマジックボンド 萬能膠

Devcon Fasstik (shows 85% of strength in 15 min. at 25°C)

Devcon Fasstik (Pegamento de Barra)

デブコンファスティック 萬能膠

Ideal for emergency repairs.
Easy to carry and use: cut as you need, mix with fingers and patch.



For Magic Bond

- For plumbing repairs and marine use.
- Cures rock-hard in 30-40 minutes, seals permanently.
- Cure even under water.

For Fasstik

- NSF certified for use in potable water applications.

81 22 93	Devcon Magic Bond, 114 g / unit	Pc.
94	Devcon New Fasstik, 114 g / unit	"

Devcon Zip Patch

Devcon Zip Patch (Parche Potente) ジップパッチ 修理胶带

Easy-to-use waterproof adhesive patch kit. Hardens in minutes at room temperature. Excellent adhesion to iron, steel, stainless steel, titanium, FRP, aluminium, wood, ceramics, composites, acrylics, PVC, and other plastics. Makes permanent, waterproof field repairs to pipes, tanks, and containers.



Contents: Glass fibre patch 100 mm × 230 mm, Activator spray, Spatula, Protective gloves.

81 22 98	Devcon Zip Patch	Kit
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Cordobond Products

Productos "Cordobond" コードボンド製品 Cordobond 產品

Cordobond Strong-Back Resin & Activator

Resina y Activador Strong-Back

コードボンド製品スタンダード 考特强力粘合剂



Liquids to be mixed together for use with glass cloth, glass mat and glass tape. The mixture hardens into a rigid mass that bonds with high tenacity to almost any surface to produce a tight seal which will not dissolve in water, oil or most chemicals and will resist elevated temperatures and pressures.

81 23 01	Cordobond Strong-back resin & activator, 453 grm/unit	Set
02	Cordobond Strong-back resin & activator, 906 grm/unit	Set

Cordobond Strong-Back Putty (Red)

Masilla (Roja) Strong-Back パテ 考特强力粘合膏



A tough, dense compound which sets up hard and possesses high adhesive qualities. Used for plugging large holes before reinforcement with activated Cordobond strong-back resin and fiberglass cloth.

81 23 06	Cordobond Strong-back putty, 226 grm/unit	Set
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Cordobond Strong-Back Sealer

Sellador Strong-Back

コードボンドシーラー 考特强力密封膏

Sticky material for sealing small holes, cracks and leaks around tank and pipe fittings where pressures are low. Can be applied by trowel or putty knife.



81 23 08	Cordobond Strong-back sealer, 113 grm/unit	Set
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Cordobond Strong-Back Steel Putty

Masilla de Acero Strong-Back

コードボンドスチールパテ

考特铜质粘合膏

Combination of steel packed resin and activator for repairing cracks, holes, crevices, defects, etc. in steel and other metals. Steel putty can be drilled, threaded, machined, filed or hack-sawed.



81 23 10	Cordobond Strong-back steel putty, 453 grm/unit	Set
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Cordobond Strong-Back Leveling Compounds (Yellow)

Compuestos (Amarillos) para Allanar

レベリングコンパウンド 强力备材

Trowel applied packed resin and activator used for building up corroded and pitted areas to a uniform surface.



81 23 12	Cordobond Strong-back leveling compound, 453 grm/unit	Set
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Cordobond Glass Sheets

Plancha de Vidrio ガラス シート 玻璃板



Glass tape, cloth and reinforced mat. The tape and cloth are made of woven glass yarn. Provides the main strength of a patch when saturated with activated Cordobond strong-back resin. The mat is made of fibers which are felted together and reinforced. Due to its absorbing and reinforcing qualities, glass mat is used to speed up the curing and provides additional strength.

81 23 21	Cordobond glass cloth, 1,000 × 1,000 mm	Sht
22	Cordobond glass mat, 900 × 900 mm	"
23	Cordobond glass tape, 38 mm × 30 mtr	Rls.
24	Cordobond glass tape, 76 mm × 150 mtr	"
25	Cordobond glass tape, 100 mm × 150 mtr	"

Cordobond Repair Kits

Equipos para Reparación リペアーキット 维修工具包



These repair kits are the commercial adaptation of the U.S. Navy kit, packed in suitable chests. The kit container size is 480 × 320 × 320 mm.

The Repair Kit contains the following:

20	Unit	226 grm	Cordobond Strong-Back Standard Resin & Activator
2	Unit	226 grm	Cordobond Strong-Back Putty (red)
2	Unit	113 grm	Cordobond Strong-Back Sealer
2	Unit	453 grm	Cordobond Strong-Back Steel Putty
2	Unit	453 grm	Cordobond Strong-Back Level Compound
1	Sht	1mtr×2.7 mtr	Cordobond Glass Cloth
3	Rolls	38mm×1mtr	Cordobond Glass Tapes
1	Sht	1mtr×90cm	Cordobond Glass Mat
1	Sht	3cm×1mtr	Cordobond Contour Cloth
2	Pair		Neoprene Gloves
1	Pair		Scissors
12	Pcs	2.4mtr×30cm	Wood Stirring Tools
1	Sht		Kraft Paper
1	Ball		Twine
12	Pcs		Paint Brushes
1	Roll		Pressure Sensitive Tape

81 23 30	Cordobond repair kit complete	Set
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Wencon Products

Productos Wencon ウェンコン製品 WENCON 产品

Wencon Repair Kit for Marine

Wencon Equipo de Reparación 補修キット WENCON 修补用具

The mechanical first-aid kit for leaking pipes and tanks, for corroded cooler end covers, pump casings, valves, sea water filters, etc. Wencon repair kits are available in different sizes, depending on size and age of the vessel.

Covers most aspects of emergency repairs and long lasting maintenance. Suitable for all ships where repairs and maintenance are carried out frequently. Please select a suitable kit according to your vessel's size and age from the following range of kits.



Product No.	The 4 standard repair kit contains:	Kit 1 (812341)	Kit 2 (812331)	Kit 3 (812332)	Kit 4 (812333)	Tanker Kit (812326)
1010	Wencon Cream, 1 kg	1 set	-	-	-	-
1000	Wencon Rapid, 1 kg	1 set	1 set	-	-	-
1005	Wencon Rapid, 8 x 125 g	1 set	1 set	1 set	1 set	-
1020	Wencon Coating, white, 0.5 kg	2 set	1 set	1 set	-	-
1030	Wencon Coating, blue, 0.5 kg	2 set	1 set	1 set	-	-
1050	Wencon Hi-Temp, yellow, 0.5 kg	1 set	-	-	-	1 set
1060	Wencon Hi-Temp, green, 0.5 kg	1 set	1 set	1 set	-	1 set
1040	Wencon Putty, 8 x 125 g	1 set	1 set	1 set	1 set	-
1042	Wencon Putty, 4 x 125 g	-	-	-	-	1 set
1044	Wencon Pipe Tape 2 unit, 10 x 350 cm	-	-	-	-	-
1045	Wencon Pipe Tape 5 unit, 5 x 150 cm	1 box	1 box	1 box	1 box	-
1046	Wencon Pipe Tape 4 unit, 5 x 350 cm	1 box	1 box	-	-	1 box
1070	Wencon Exhaust Repair Kit, 2 x 250 g	1 box	1 box	1 box	1 box	-
1104	Wencon Bio Cleaner, 0.75ltr	-	-	-	-	-
1014	Wencon UW Cream, 0.5 kg	1 set	-	-	-	2 set
1035	Wencon UW Coating, orange, 0.5 kg	1 set	-	-	-	2 set
1036	Wencon UW Coating, brown, 0.5 kg	-	-	-	-	2 set
1016	Wencon Ceramic Cream, 1 kg	-	-	-	-	-
1017	Wencon Ceramic Coating, light grey, 0.5 kg	-	-	-	-	-
1018	Wencon Ceramic Coating, light green, 0.5 kg	-	-	-	-	1 set
1100	Wencon Cleaner, 0.5 ltr	3 set	2 set	1 set	1 set	-
1110	Wencon Release Agent, 50 g	1 box	1 box	1 box	1 box	-
1120	Wencon Reinforcement Tape, 5cm x 10 mtr	3 roll	2 roll	2 roll	1 roll	6 roll
1122	Wencon Reinforcement Tape, 10cm x 20 mtr	-	-	-	-	1 roll
1150	Wencon Aggregate No. 24, 1.5 kg	-	-	-	-	-
2805	Wencon Application Tools	1 set				
2808	Wencon Fixation Tools					1 set
	Wencon Manual	1 pcs				
1250	Rotating Blaster single	-	-	-	-	-
1252	Rotating Blaster duo	-	-	-	-	-
1254	Rotating Blaster triss	-	-	-	-	-
	Plywood Box	1 large	medium	1 small	1 small	1 small

CODE	Kit No.	Application	Model	Unit
81 23 41	1	For old & large vessels	8700	Set
81 23 31	2	For new & large vessels	8704	"
81 23 32	3	For medium & large vessels	8708	"
81 23 33	4	For small in domestic traffic	8712	"
81 23 26		For Tanker vessels	8710	"

Name of Mfr. Wencon Aps

Wencon Exhaust Repair Kit

Wencon Equipo de Reparación de Escape
排気システム用補修キット WENCON 排气系统修补用具

One-component cold weld product for repair of cracks and leaks in exhaust systems exposed to high temperatures. The compound resist temperatures up to 1,300°C (2,400°F).



The kit contains:

- 2 x 250 gm Exhaust repair compound
- 1 pc Metal mesh for reinforcement purposes
- 1 pc Spatula
- 1 pc Application data sheet

81 23 40	Wencon exhaust repair kit, 2 x 250 gm product No. 1070	Set
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Wencon Cream/Rapid

Wencon Crema de Reparación para Metales/Rápida
クリームラビッド WENCON 修补膏

Repairing and refurbishing metal structures being deteriorated through corrosion, bimetallic corrosion or in other ways. Especially used for corroded tanks, pump housings, valves, filter housing and strainers, tubes, heat exchanger end covers, flange faces. Roller bearing seats, alignment of bushings, shafts, hydraulic rams, key ways, etc. "Cream" and "Rapid" are both paste consistency and easy applied even to vertical surfaces, and "Cream" is for slow curing and "Rapid" is quick curing.



CODE	Description	Products No.	Contents	Unit
81 23 35	Wencon cream	1010	1 kg	Set
81 23 43 47	Wencon rapid	1005 1000	8 x 125 gm 1 kg	Set Set

Wencon UW Cream Wet Surface

Crema UW Wencon 水中補修用クリーム

WENCON 水下修补剂

A two component cream, to be applied on wet surfaces or under water. The UW Cream is excellent for filling up holes, dents and rebuilding of surfaces which, due to high humidity, have to be done in wet conditions. Typical applications are corroded hulls and all underwater parts of ships and structures, tanks, pipes, flange faces, etc. It is also excellent for filling up cavitation damages on hulls and rudders. Wencon UW Cream has a strong adhesion to all metal surfaces.



81 23 34	Wencon UW cream, wet surface, #1014, 0.5 kg	Can
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Wencon Coating

Wencon Revestimiento ヨーティング材 WENCON 高温保护材料

For protecting your machine parts against bi-metallic corrosion, erosion/corrosion, impingement, entrainment, etc. The treatment will improve the flow characteristics in pumps and valves. Typical applications are coating of surfaces rebuild after deterioration, protection of tanks, pumps, valves, wet liners, cooler end covers etc. against corrosion and bi-metallic corrosion as well as a variety of small and large repair and maintenance jobs. Wencon Coating can be applied by spatula and is a double coat system in white and blue.



CODE	Description	Products No.	Contents	Unit
81 23 37	Wencon coating white	1020	0.5 kg	Set
38	Wencon coating blue	1030	"	"

Wencon Hi-Temp

Wencon Revestimiento para Alta Temperatura
高熱用コーティング材 WENCON 高温保护材料

The high performance coating product for repair and protection in high temperature and aggressive environments. The Hi-Temp offers temperature up to 160° C, provided the media is not boiling. Typical applications are coating of surfaces rebuild after deterioration including repair of lining on inert gas systems, fresh water generators, hot pipes and heating coils, protection of tanks, pumps and valves against chemical and mechanical aggression, corrosion and bi-metallic corrosion. Wencon Hi-Temp is supplied in a double coat system in yellow and green.



CODE	Description	Products No.	Contents	Unit
81 23 45	Wencon hi-temp yellow	1050	0.5 kg	Set
46	Wencon hi-temp green	1060	"	"

Wencon UW Coating Wet Surface

Capa UW Wencon 水中補修コート材 WENCON 水下修补剂

Excellent liquid coating for applying on wet surfaces or under water, with a very good adhesion to metal surfaces. Typical applications are coatings of steel surfaces rebuild with Wencon UW Cream, and coatings under water - like ships hulls and/or other submerged structures, tanks, pipes etc. Examples of repairs under extreme conditions could be: on-site repair of sea-water filter housings, unable to achieve a dry surface and coating of scratched painting on hulls in splash-zones and under water. Wencon UW Coating is a double coat system and is supplied in two different colours, orange and brown.



81 23 36	Wencon UW Coating, wet surface, orange #1035, 0.5 kg	Set
81 23 27	Wencon UW Coating, wet surface, brown, #1036, 0.5 kg	"

Wencon Bio Cleaner

WENCON Bio Cleaner 生分解性クリーナー WENCON 清洗剂

A water based alkaline degreaser, used for cleaning purposes prior to application of Wencon products, in order to ensure best possible adhesion. An environmentally friendly product and is classified as Non Dangerous Goods. Applied on wet and dry surfaces. For application on wet surface, Wencon UW Coating is needed as a primer before application of any further products. Supplied with a separate spray, which is set for foam spray when delivered. Recommend using foam spray, due to the efficiency.



81 25 97	Wencon Bio Cleaner, spray, #1104, 0.75 ltr/btl	Btl.
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Wencon Pipe Tape

Wencon Cinta para Reparación de Tuberías
パイプテープ WENCON 管道胶带

A fast curing pipe repair bandage especially formulated to make quick and effective repairs of cracks, leaks, fractures, and corrosion porosity in piping carrying water, oil, steam, most gases and even solvents. Wencon Pipe Tape has good pressure, temperature and chemical resistance. Available in 3 sizes.



CODE	Description	Product No.	Unit
81 23 28	Wencon pipe tape, 2 unit pack 10 cm x 350 cm	1044	Set
44	Wencon pipe tape, 5 unit pack 5 cm x 150 cm	1045	"
48	Wencon pipe tape, 4 unit pack 5 cm x 350 cm	1046	"

Wencon Putty

Wencon Masilla パテ WENCON 密封料

The quick curing, ready to use, mouldable, epoxy repair paste. This multipurpose epoxy paste is ideal for a wide range of emergency repairs where an ultra quick curing and mouldable compound is required. Typical applications are patching sealing and filling of cracks, leakages and holes in pipes, on flanges, in tanks etc. Used in combination with Wencon Pipe Tape.



81 23 42	Wencon putty, 8 x 125 grm, product no. 1040	Set
81 23 29	Wencon putty, 4 x 125 grm, product no. 1042	"

Wencon UW Putty

Wencon UW Masilla 水中補修パテ WENCON UW 密封料

Wencon UW Putty is a two-component compound, to be applied on wet surfaces or under water. The UW Putty is excellent for filling up holes, dents and rebuilding of surfaces which, due to high humidity, have to be done in wet conditions. Wencon UW Putty is developed for applications, where bigger quantities are needed in one process.



81 23 54	Wencon UW putty, 1 kg, product No. 1012	Set
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Wencon Cleaner

Wencon Limpiaador クリーナー

WENCON 清洗剂

Trichlorethylene based non-flammable degreasing agent, which is used for cleaning purposes prior to application of the Wencon products.



81 23 49	Wencon cleaner, 0.5 ltr	Can
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Wencon Release Agent

Wencon Agente para Despegar 剥離材 WENCON 分离剂

Used in applications where you want to prevent adhesion between Wencon and the substrate. The release agent is applied in a thin layer and left for drying in ten minutes. Remove excess material using a cloth.



81 23 50	Wencon release agent, 50 grm	Pc.
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Wencon Ceramic Cream

Crema Cerámica Wencon セラミッククリーム

威康陶瓷乳剂

The epoxy compound for repair and rebuilding of deteriorated metal parts, exposed to excessive wear. Typical applications are corroded tanks, pump housings, impellers, valves, pipes, flange faces, roller bearing seats, worn shafts, hydraulic rams and heat exchangers. Wencon Ceramic Cream is also excellent as a filling compound.



Wencon Ceramic Cream can be machined, drilled and worked like metal after curing. The compound has a paste consistency and is easily applied by spatula also to vertical surfaces.

81 25 92 Wencon ceramic cream, No.1016, 1 kg

Set

Wencon Ceramic Coating

Revestimiento Cerámico Wencon

セラミックコーティング 威康陶瓷涂层

The versatile and cost effective two-component coating product for general repair, maintenance and protection of surfaces, exposed to excessive wear. Typical applications are coating of surfaces rebuild after deterioration, protection of tanks, pumps, valves, wet liners, cooler end covers etc. against wear, corrosion and bi-metallic corrosion as well as a variety of small and large repair and maintenance jobs.



Wencon Ceramic Coating is a double coat system and is consequently supplied in two different colours, light grey and light green. The product is liquid and is applied by brush, roller or spatula.

81 25 93	Wencon ceramic coating, Light Grey, No.1017, 0.5 kg	Set
94	Wencon ceramic coating, Light Green, No.1018, 0.5 kg	"

Wencon Application Tools

Utensilios de aplicación Wencon

アブリケーションツール 威康应用工具

Wencon Application Tools are quality products regularly used in connection with mixing and application of Wencon repair products.



The kit contains:

- 4 spatulas for application of compounds and coatings.
- 4 brushes for application of coatings.
- 4 mixing knives for mixing of Wencon two component.
- 1 pair of scissors for cutting Wencon Reinforcement Tape, Pipe Tape and other soft material.
- 4 pairs of nitrile-gloves.

81 25 95 Wencon application tools, No.2805

Set

Wencon Fixation Tools

Herramientas de fijación Wencon 固定・補修ツール

维修工具包

Used for repair of cracks and corrosion in tanks, leaking pittings and welding seams. The Fixation Tools help to support and secure Wencon products to the damaged part.



81 25 96 Wencon Fixation Tools, No.2808

Set

Belzona Polymers**1111 Super Metal**

Super Metal de Belzona Polimérica

ベルゾナポリメリックススーパー・メタル 高级金属修理膏



A general-purpose engineering compound for fully machinable repairs.

Belzona 1111 Super Metal has outstanding mechanical strength combined with excellent chemical resistance. The unique properties of 1111 Super Metal make it ideal for application to hydraulic rams, worn shafts, oversize housings, worn keyways, damaged engine blocks, distorted flanges, and also to repair pinholes and fractures in pipe work, particularly on T-pieces and elbows. Repairs tracked and eroded flange faces. Each unit contains basic resin and hardener.

Suitable for contact with potable water as it is certified to NSF/ANSI Standard 61 and satisfies the UK Drinking Water Inspectorate.

Unit Per Set			
CODE	81 23 51	81 23 52	81 23 53
Size	1 kg/unit	2 kg/unit	5 kg/unit

Water Activated Tapes
for Pipe Repair

Cintas de plástico reforzado con vidrio hidroactivas para reparación de tuberías
配管修理用水発泡テープ 管道修理用水发泡胶带



Designed and recommended for stopping leaks in pipe which may occur due to corrosion or other reasons. Composed of a quality knitted fiberglass cloth coated with a special polyurethane resin which is activated by a 5 second immersion in water. Once activated by water the tape will transform from a wet adhesive into a rigid plastic state in minutes. Bonds to most common plastic or metallic pipe materials such as steel, iron, copper, PVC, fiberglass, and others. Recommended for leaks not exceeding 1/8" in diameter and pipe size 2" in diameter. May be used with good results on pipe with a temperature range from -29°C to 121°C. Each roll of products is individually packaged with gloves for handling.

Unit Per Rls.		
CODE	Size	Weight gm
81 23 61	5 cm x 1.2 mtr	130
64	5 cm x 1.5 mtr	100
62	5 cm x 3.6 mtr	205
81 23 65	7.5 cm x 1.2 mtr	160
81 23 63	10 cm x 1.2 mtr	307

Pipe Repair Kit**Water Activated Fiberglass Tapes**

Cintas de plástico reforzado con vidrio hidroactivas para reparación de tuberías
水活性テープ配管修理キット 管路修理用水发泡胶带



Ideal for the emergency repair of defective and damaged pipes and pipelines. It comprises one WEICON Repair Stick Multi-Purpose, a special repair tape made of fibreglass-reinforced plastic, assembly instructions and one pair of protective gloves. The repair tape is soaked with a special resin and is activated by contact with water. Can be processed without additional tools and provides reliable long-term sealing of cracks and leaks. It is very easy and fast to apply and shows excellent adhesive properties, high resistance to pressure and chemicals as well as high temperature resistance up to 150°C. Certified to NSF/ANSI 61 as drinking water approval.

81 24 31	Pipe Repair Kit, Water Activated Fiberglass Reinforced Plastic Tape	Set
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Name of Mfr.: Weicon GmbH & Co. KG

High Pressure Leak Sealant Kits STOPIT® HP™

Equipo para sellado de fugas de alta presión
高压配管修理用水発砲テープキット
高压管道修理用水发炮胶带配套工具

A multi-component epoxy composite repair system designed for high-pressure sealing applications with working pressures up to 2,000 PSI (140 kg/cm²) and operating temperatures up to 165°F (74°C). The repair system provides a built in 5:1 safety margin.



Repair applications can be made regardless of pipe orientation and results in a durable coating approximately 5mm thick. The repair epoxy system has a working time of approximately 8 – 10 minutes and will allow return to service in as little as 4 hours.

Supplied in a kit with all the necessary components for field installation*. Standard kits for repair of pipes up to 4" in diameter are available; non-standard kits can be custom made to order with short delivery times.

* Installation requires no special training and involves minimal surface preparation.



Physical Properties of Sealant:

Shelf Life: 6 months from date of purchase when stored at 40° to 83°F (5° to 28°C).

Colour: Component 1-Clear/Component 2- Straw/Fiber-yellow.

Mixing Ratio: As supplied, dual cartridge dispenser.

Pot Life: 8 min. @72°F (22°C), after mixing for films less than 1/2" thick.

Glass Transition Temperature:

216°F (102°C), cured and annealed.

Cure Time: - 4 hour @72°F (22°C) at 1/8" film thickness.

Sealant Viscosity: Gel-like before cure.

Kit Contents

1 x Pre-filled dispensing cartridge(s)	1 x Mixing tray
2 x Static mixers with retainer	1 x Safety gloves
1 x Composite fabrics	1 x Clean-up supplies
1 x Instruction manual	

Unit Per Set

CODE	For Nom. Pipe Size	CODE	For Nom. Pipe Size
81 24 61	1 Inch (25 mm)	81 24 63	3 Inch (75 mm)
81 24 62	2 Inch (50 mm)	81 24 64	4 Inch (100 mm)

Name of Mfr.: InduMar Products Inc.

Adjustable Pipe Repair Clamps

Abrazaderas Ajustables para la Reparación de Tuberías
調整式パイプ補修クランプ 可调式管路维修夹钳

Adjustable Type 301 Stainless Steel repair clamps repair splits, pin holes or punctures in pipe or tubing. This handy tool is uniquely faced with expanded PTFE which is the most effective seal for all common chemicals and is food grade acceptable. The clamp conforms to most irregular surfaces and controls most pressures with simple hand-tightening. Adjustable to fit pipe and tube sizes from 1/2" to 6". Combine clamps to fit larger sizes. 10 clamps per case.



81 23 66	Stop-It® Pipe Repair Clamp for pipe size 1/2" to 6", 10 clamps per case
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C/S

Leak Repair Kits

InduMar - First Response™

Equipos para Reparación de Fugas

漏洩補修キット 漏漏维修成套工具

Quickly repair most common leaks in pipes, tanks and drums with a variety of sealing devices and materials. Designed with first responders in mind. The kit has the tools to respond to pipe leaks and surface holes of all shapes, as well as cracks and gashes - includes the following:



No.	Items	Q'ty
1.	Stop It® Pipe Repair System – small/medium/large	1
2.	Epoxy Fix Stix™	5
3.	Assorted wooden plugs	18
4.	Rubber hammer	1
5.	Plug rugs "Plug-N-Dike"	2
6.	Plug patties "Plug-N-Dike"	3
7.	Lead wool filler pack	1
8.	Hot/cold hose repair tape	1

81 23 68	Leak repair kit, First Response™
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Set

Emergency Pipe Repair Systems

Sistema de reparación de emergencia para tuberías

緊急パイプ補修クランプシステム 应急管道修补带

The fastest and easiest way to temporarily repair pipe leaks and bursts. Taking less than 60 seconds to install and featuring a fully self-contained design, which does not require the use of tools. Made from 316 stainless steel, the rapid response clamp system covers 10 bar, 20 bar and 40 bar faults and features a Nitrile or Viton lip-seal, making it suitable for water, gas and petroleum liquids.

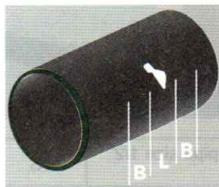


Designed under contract by the Australian Government Defence Science and Technology Organisation (DSTO) for use by the Royal Australian Navy, and is suited to a wide range of commercial uses, including: marine, oil and gas, mining, emergency services and plumbing applications.

Selecting the correct clamp length;

When repairing a damaged pipe, it is important to ensure sufficient rubber gasket contact between the edge of the damaged area (refer to "L") and the edge of the clamp. The table below provides a guide to clamp selection, where "B" is the minimum recommended sealing width between the damaged area (L=width) and the end of the clamp.

Nom. Diameter (DN)	Min. Seal Length B (mm)
38 mm - 930 mm	15 mm



Minimum Recommended
Clamp Length = L + 2B
Example; If the damaged area
measures 20 mm, then a 60 mm
Single Clamp should be used.
(L = 20; 20 + [2 x 15] = 50 mm)

How to order: CODE

Emergency Pipe Repair System, SUS 316 Single or Dual or Triple or Quad lever clamp, SIZE OF PIPE OD and PART NO.

CODE	81 24 66	81 24 67	81 24 68	81 24 69	Unit Per Pcs.
Pipe Diameter	Single Lever Clamp 70 mm Wide	Dual Lever Clamp 148 mm Wide	Triple Lever Clamp 210 mm Wide	Quad Lever Clamp 272 mm Wide	
Version	Milspec (Up to 20 Bar)				
38-75	VPG-SC-S-4-38-75	VPG-DC-S-4-38-75	VPG-TC-S-4-38-75	VPG-QC-S-4-38-75	
75-100	VPG-SC-S-4-75-100	VPG-DC-S-4-75-100	VPG-TC-S-4-75-100	VPG-QC-S-4-75-100	
100-220	VPG-SC-S-4-100-220	VPG-DC-S-4-100-220	VPG-TC-S-4-100-220	VPG-QC-S-4-100-220	
220-350	VPG-SC-S-4-220-350	VPG-DC-S-4-220-350	VPG-TC-S-4-220-350	VPG-QC-S-4-220-350	
350-500	VPG-SC-S-4-350-500	VPG-DC-S-4-350-500	VPG-TC-S-4-350-500	VPG-QC-S-4-350-500	
500-650	VPG-SC-S-4-500-650	VPG-DC-S-4-500-650	VPG-TC-S-4-500-650	VPG-QC-S-4-500-650	
650-800	VPG-SC-S-4-650-800	VPG-DC-S-4-650-800	VPG-TC-S-4-650-800	VPG-QC-S-4-650-800	
800-930	VPG-SC-S-4-800-930	VPG-DC-S-4-800-930	VPG-TC-S-4-800-930	VPG-QC-S-4-800-930	

Remark: Commercial Type (Up to 10 bar) is also available on request.

Name of Mfr.: Valley Precise Global Pty Ltd.

Metal Repair and Protection Systems

Reparación de Metal y Sistemas de Protección

金属修理・保護システム

金属修理・保護系统

The polymer composites provide the ultimate solution for erosion, corrosion, wear or chemical attack which create problems in fluid flow systems.

The systems exhibit outstanding compressive and flexural strengths as well as phenomenal adhesion, producing the most advanced polymer claddings available for rebuilding, resurfacing and protecting virtually all fluid flow components.

Metalclad Duralloy

Multipurpose paste material, can be drilled, tapped, turned on a lathe, sanded and polished. Can be used to repair worn shafts, cracked casings and engine blocks, etc. Trowelable, requires no heat.

81 23 71	Metalclad Duralloy,	1 kg	Set
72	"	2 kg	

Metalclad Speedalloy

The leak stopper paste material. Fast, easy, non-slump ; can be used to repair just about any leak in minutes. Bonds to virtually any rigid surface.

81 23 75	Metalclad Speedalloy, 167 grm x 10's	Set
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Metalclad Ceramalloy CP+

Outstanding wear resistant paste material. Trowelable system for repairing and rebuilding metal damaged by erosion and corrosion: pumps, valves, heat exchangers, etc.

81 23 77	Metalclad Ceramalloy CP+, 1 kg	Set
78	" , 2 kg	

Metalclad Ceramalloy CL+

The ultimate resurfacing system for protecting fluid flow equipment. Brushable, self-leveling, castable thixotropic liquid for pumps, valves, water boxes, tube sheets, tanks, propellers, etc. Two colours (blue and grey) are provided.

81 23 81	Metalclad Ceramalloy CL+, Blue, 1 kg	Set
82	" , Grey, 1 kg	"

Flexiclad Dura Tough

These systems provide exceptional protection to equipment prone to cavitation attack and subsequent damage. Also ideal for creating or repairing flexible seals on machinery and equipment such as on heat exchangers, pumps, valves and piping systems.

Dura Tough DP: Epoxy urethane paste

Dura Tough DL: Thixotropic liquid, blue or green

81 23 85	Flexiclad Dura Tough DP, 500 grm	Set
81 23 86	Flexiclad Dura Tough DL, blue, 500 grm	Set
87	" , green, 500 grm	"

Chemclad XC

Epoxy system liquid resistant to a very wide variety of organic and inorganic acids, alcohol, alkalis, ester, ether, hydrocarbon, ketone, oil, salt, etc. Can be easily and safely applied by brush, roller, squeegee or airless spray. Two colours (light grey and dark grey) are provided.

81 23 91	Chemclad XC, light grey, 5 kg	Set
92	" , dark grey, 5 kg	"

Eneseal HR

To provide maintenance and facilities engineers to protect insulation from water and oil impregnation, impact and chemical attack; to seal and protect concrete containment walls ; to provide a heat refractive surface to reduce the heat envelope around the equipment and structures --especially metal decks, increasing energy efficiency; and to waterproof just about any porous surface. Can be easily and safely applied by roller, brush or spray.

81 23 95	Eneseal HR, 15 ltr	Can
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DIAMANT Products

Productos DIAMANT ディアマント製品 DIAMANT 产品

Ultrametal Ceramic Steel Putty

Masilla de acero cerámico Ultrametal

ウルトラメタル・セラミック・スチール・パティ

超金属陶瓷钢腻子



Ultrametal ceramic steel is suitable for extreme loads when maintaining industries and crafts. The highly wear resistant polymer provides an extended pot life in combination with a shortened curing time (<2 hours) which allows best results on medium as well as large-scale repairs e.g. pipe coatings, wear protection coatings, pump repairs, slides, shafts etc.

Product Benefits:

- Increased wear resistance.
- High chemical resistance.
- General purpose compound in engineering.
- Short curing epoxy (2 hours).

81 23 88	DIAMANT Ultrametal ceramic steel putty 1kg/set	Set
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DIAMANT Ship Repair Set

Conjunto de reparación para barcos DIAMANT
緊急バイブ補修キット 应急管道修补套组

The "must have" solution kit for general maintenance as well as emergency repairs. The ship repair set provides solutions from simple leak repairs up to emergency repairs of pipes, pumps, tanks and other equipment in the open sea.



The set consist of:

1 x 500 grm	Plasticmetal cast-iron WF 0062
2 x 500 grm	RR-Metal 0316
1 x 500 grm	Ultrametal ceramic rapid 1685
1 x 500 grm	Ultrametal ceramic-steel 1683
1 x 500 grm	Diagum putty 0373
1 x 200 ml	DIAMANT cleaner liquid 1417
div.	Application and mixing tools, reinforcement materials, clamps and technical documentation

81 23 89	DIAMANT ship repair set	Set
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DIAMANT Diagum

Agente endurecedor de baja temperatura 低温硬化剂 低温硬化剂



Cold-curing 2-component elastomer for reliable repairs which cures to a tough medium-hard rubber (Shore A85). After curing the product is extremely elastic and resistant against chemical and physical loads up to 160°C. The elastomer perfectly adheres to all metals, natural and synthetic rubbers, nitrile, butyl, concrete, fiberglass and wood. Diagum is commonly used on pipes, pipe bends, clutch parts, polishing drums, rubber hoses, rubber rolls, rubber wheels, surface seals, conveyor belts and many other parts. Diagum is available in putty and liquid viscosity.

CODE	Description	Unit
81 23 93	DIAMANT diagum liquid, 500 grm/set	Set
94	DIAMANT diagum putty, 500 grm/set	"

DIAMANT RR Metal

Agente de reparación de metales DIAMANT RR
金属補修剤 金属修补剂



Quick and reliable repair material for metal parts even on WET SURFACES or UNDERWATER. Two component type rapid repair system for voids, cracks, dents and holes in all kind of machine elements, castings, pipes, tanks, pumps and engines. It adheres to nearly all surfaces and offers a wide range of protection against corrosion, erosion, chemical, thermal and physical attacks. Permanent temperature resistant up to 160 °C / 320 °F and a free mixing ratio gives you the possibility to adjust the viscosity from liquid to putty to fulfill your needs during the application.

Product Benefits :

- Applicable on wet surfaces.
- Fast curing (Even underwater).
- Resistant up to 160°C.
- Free mixing ratio (Liquid & putty in one product).

CODE	Description	Contents	
		Powder	Hardener
81 23 98	Industrial Pack	650 grm	350 grm

DIAMANT Plasticmetal WF

Masilla de metal DIAMANT de alta temperatura
高温用金属補修剤 高温金属修补剂

Quick and reliable repair material for metal parts even at HIGH TEMPERATURES. Two component type rapid repair system for voids, cracks, dents and holes in all kind of machine elements, castings, pipes, tanks, pumps and engines. It adheres to nearly all surfaces and offers a wide range of protection against corrosion, erosion, chemical, thermal and physical loads. Permanent temperature resistant up to 250 °C / 480 °F and a free mixing ratio provides you the possibility to adjust the viscosity from liquid to putty to fulfill your needs during the application. Plasticmetal has been developed for an outstanding ease of use compatible with superior technical properties.



Product Benefits:

- Temperature resistant up to 250 °C.
- Very high proportion of metallic fillers.
- Excellent technical characteristics.
- Fast curing.
- Machinable like metal.
- Variable viscosity.

Unit Per Set

CODE	Description	Contents	
		Powder	Hardener
81 23 99	Industrial Pack	650 grm	350 grm

DIAMANT Ultrametal Putty

Masilla para metales de uso general
汎用金属補修剤 通用金属修补剂



The general purpose compound in engineering. The polymer metal is highly resistant against chemical and physical loads and is machinable like metal: file, mill, turn, and bore, thread cutting and polishing. Up to 90% metallic filters allow best metal properties and guarantee a long-lasting repair. Ultrametal has been developed especially for large-scale repairs with an ineffectual shrinkage.

Product Benefits:

- General purpose compound in engineering.
- Preferred choice for large-scale repairs.
- Deliverable in service boxes.
- Mixing ratio 1:1 eases the application.

81 23 96	DIAMANT Ultrametal putty, 1,000 grm	Set
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DIAMANT UM1250

Equipo de reparación rápida DIAMANT UM1250
緊急補修キット 应急修补套组



The quick repair solution for emergency situations. Very good adhesion to any kind of metal even on OILY SURFACES. Short curing times make DIAMANT UM1250 the first choice to repair parts at sea. Whether housings, pumps, containers, engine blocks, cylinder heads, gear boxes, bearing seats, coolers, propellers, impellers, tubes or pipes, UM1250 is your solution to fix the problem within a couple of minutes. Suitable for small areas with good resistance to wear, abrasion and

extremely resistant to aggressive chemicals. Machinable like metal. Mixing ratio 1:1 by volume, delivered in a complete box with all needed tools in one set.

Product Benefits:

- Applicable on oily surfaces.
- Emergency repairs / first curing.
- Perfect adhesion on metal parts.

81 23 97 DIAMANT UM1250, 500 gm

Set

Weicon Emergency Repair Kit

Equipo de reparación rápida

ウェイコン緊急補修キット 应急修补套组



For emergency repairs and maintenance works on board of ships, equipped with many different products that support you in various cases, cover most cases of offshore emergency repairs and maintenance works during long ways.

Repair Kit 1 covers the most common emergency and maintenance cases, Repair Kit 2 and 3 covers a lot of different applications on board. The Repair Kits are suitable for all ships, where repairs and maintenance have to be done frequently.

The 3 standard repair kit contains:	Kit 1 (812907)	Kit 2 (812908)	Kit 3 (812909)
Weicon A, 0.5 kg	2 set	2 set	2 set
Weicon SF, 0.5 kg	2 set	2 set	2 set
Weicon BR, 0.5 kg	-	-	1 set
Weicon WR, 0.5 kg	-	-	1 set
Weicon HB 300, 1.0 kg	-	1 set	2 set
Weicon Ceramik BL, 0.5 kg	-	-	1 set
Weicon UW, 0.5 kg	2 set	2 set	2 set
Repair Stick Aqua 115 g	2 set	3 set	4 set
Repair Stick Steel 115 g	2 set	3 set	4 set
Urethan 80, 0.5 kg	-	-	1 set
AN 302-43, 50 ml	-	1 set	1 set
AN 302-60, 50 ml	-	1 set	1 set
AN 305-77, 50 ml	-	-	1 set
AN 306-38, 50 ml	-	-	1 set
Thread Sealing Cord DF 175	-	-	1 set
Plast-o-Seal, 90 ml	-	-	1 set
VA 8312, 30 g	-	1 set	1 set
VM 120, 30 g	-	1 set	1 set
GMK 2410, 700 g	-	1 set	2 set
Black-Seal, 310 ml	-	1 set	2 set
Cleaner Spray S, 500ml	-	2 set	2 set
Gasket Remover, 400 ml	-	-	1 set
W 44 T, 400 ml	-	1 set	2 set
Rust Shock, 400 ml	-	1 set	2 set
Mould Release Agent, 400 ml	-	-	1 set
Starter-Spray, 400 ml	-	1 set	1 set
Contact Spray, 400 ml	-	1 set	1 set
AS 500, 500 g	-	-	2 set
Application Kit	1 set	1 set	2 set

CODE	Description	Model	Unit
81 29 07	Weicon Emergency Repair Kit 1	10851001	Set
81 29 08	Weicon Emergency Repair Kit 2	10851002	"
81 29 09	Weicon Emergency Repair Kit 3	10851003	"

Name of Mfr.: Weicon GmbH & Co. KG

WEICON Plastic Metals

Epoxy Resins for Repair, Casting and Bonding

Weicon Plásticos/Metales ウエイコン補修製品 WEICON 塑胶制品

High-quality, two-component epoxy resin systems for fast, cost-effective and durable repairs of many types of material. Ideal for rebuilding of shafts, repairing leaking pipes and tanks, repair of pumps and valves damaged by erosion and/or corrosion and many other cases. Temperature resistant from -35°C to +120°C. After curing, the material is machinable with normal working tools and equipment.



CODE	Product	Content	Description	Unit Per Set
81 29 01 02	WEICON A	0.5 kg 2.0 kg	Pasty, steel-filled, certified by DNV. Especially suitable for the elimination of corrosion damages and pitting on tanks, repairs on pipes and castings, housings and machine parts.	
81 29 05 06	WEICON B	0.5 kg 2.0 kg	Flowable, steel-filled, long pot life. Making of moulds and models, tools, templates, gauges and fixtures. Also for filling blowholes and microporosities on castings as well as for general repair works where a castable compound is advantageous.	
81 29 10 11	WEICON BR	0.5 kg 2.0 kg	Pasty, bronze-filled, non-corrosive. For filling blowholes and rebuilding bronze equipment parts (e.g. propellers of ships).	
81 29 03 04	WEICON C	0.5 kg 2.0 kg	Flowable, aluminium-filled. High temperature resistant from -35°C up to +220°C. Non-corrosive, anti-magnetic and cures practically without shrinkage. Suitable for pouring out moulds (e.g. vacuum and foam moulds), making fixing devices and tools, (e.g. injection dies) which are exposed to high temperatures.	
81 29 21 22	WEICON F	0.5 kg 2.0 kg	Pasty, aluminium-filled, non-corrosive. Temperature resistant from -35°C up to +120°C. Filling blowholes and reconditioning of parts (e.g. injection moulded parts, holding devices).	
81 29 33 34	WEICON F2	0.5 kg 2.0 kg	Flowable, aluminium-filled, non-corrosive. Temperature resistant from -35°C up to +120°C. Making of castings, moulds and templates, prototypes and fixing devices. Ideal for pouring out swages to test their exactness or for pouring out fixing devices in ultrasonic welding machines.	
81 29 51	WEICON HB 300	1.0 kg	Pasty, steel-filled, high-temperature-resistant briefly up to +280°C. For applications on vertical surfaces for the repair and bonding of cast and metal parts, for filling in blow holes, for repairing damage on containers, carriages and machine parts and for sealing pumps and pipes.	

(to be continued)

Unit Per Set			
CODE	Product	Content	Description
81 29 37 38	WEICON Ceramic BL	0.5 kg 2.0 kg	Flowable, brushable, mineral (carborundum and zircon)- filled, extremely wear resistant. Temperature resistant from -35°C (-31°F) up to +180°C (+356°F). Brushable surface prediction with extremely high wear and abrasion resistance. As a preventive coating or applied after repair, it reduces abrasion on castings, valves, blower vans and in many other applications.
81 29 41 42	WEICON Ceramic W	0.5 kg 2.0 kg	Pasty, mineral-filled. Temperature resistant from -35°C (-31°F) up to +150°C (+302°F), briefly up to +260°C (+500°F). Brushable surface prediction with extremely high wear and abrasion resistance. As a preventive coating or applied after repair, it reduces abrasion on castings, valves, blower vans and in many other applications.
81 29 31 32	WEICON SF	0.5 kg 2.0 kg	Pasty, steel-filled, fast curing. Temperature resistant from -35°C (-31°F) up to +90°C (+194°F). For quick repairs and bondings (e.g. on leaky pipes, housings and gears) as well as for making anchorages and fixing devices. Certified by DNV.
81 29 43 44	WEICON ST	0.5 kg 2.0 kg	Viscous, can be applied with a spatula, metal-filled, anti-corrosive. For versatile repairs and maintenance works on stainless steel machine parts and components such as tanks, pipelines, containers, funnels and flanges.
81 29 45 46	WEICON TI	0.5 kg 2.0 kg	Pasty, titanium-filled. Temperature resistant from -35°C up to +150°C, briefly up to +260°C. Repair of pumps, valves, wearing plates, ball bearing seats, shafts, centrifugal pumps and propellers.
81 29 35 36	WEICON UW	0.5 kg 2.0 kg	Pasty, mineral-filled-resistant, cures even under water. Temperature resistant from -35°C up to +160°C. Particularly suitable for repair and maintenance work at marine and offshore sector, wherever dampness and wetness lead to bonding problems.
81 29 57 58	WEICON WP	2.0 kg 10.0 kg	Pasty, high strength, ceramic-filled, extremely wear-resistant, viscoplastic and impact-resistant. Prevents metal loss and replaces previously applied wear-resistant alloys, ceramic tiles and rubber linings as well as welded metal coatings.
81 29 47 48	WEICON WR	0.5 kg 2.0 kg	Liquid, steel-filled, wear resistant. Temperature resistant from -35°C up to +120°. Repair of shafts, pouring out bearings, cutting and punching tools, making of castings, drawing moulds, underpouring machines and foundations.
81 29 49 50	WEICON WR2	0.5 kg 2.0 kg	Pasty, mineral-filled, wear-resistant, highly abrasion-resistant. For repairs on conveyors, guides and sliding ways where rolling or sliding movements cause wear. Also for lining pump housings and extruders and for the repair of worn-out flanges.

(to be continued)

Unit Per Set			
CODE	Product	Content	Description
81 29 55 56	WEICON CBC	3.0 kg 10.0 kg	Flowable, vibration-resistant, shock-resistant, self-leveling, long pot life of 30 minutes, almost no shrinkage, permanent high static strength, high resistance to ageing, chemical-resistant. Certified by ABS.
81 29 85	Casting Resin MS 1000	1.0 kg	Liquid, unfilled, low viscosity. A transparent and very flowable epoxy resin system with high mechanical strength. For metal, wood, rigid foam and many plastics.
81 29 52 53 54	Epoxy Resin Putty	0.1 kg 0.4 kg 0.8 kg	Putty (kneadable), high-strength, versatile, temperature-resistant up to +200 °C. Used for fast repairs and maintenance works such as fixing screws, anchors and plugs, repairing leaky tanks and pipes, reconditioning castings, repairing shafts, bearings, pumps and housings, reconditioning defective threads.
81 29 59 60	Mould Release Agent Liquid F 1000	250 ml 1 ltr	Liquid, solvent-containing release agent on a waxy basis for epoxy resins and polyurethanes. It is especially suitable for release processes from smooth and non-absorbing surfaces.
81 29 64 79	Mould Release Agent Wax P500	150 g 0.5 kg	Putty, solvent-containing release agent on a waxy basis for epoxy resins and polyurethanes. It is especially suitable for release processes from smooth and/or porous surfaces.

Name of Mfr.: Weicon GmbH & Co. KG

Liquid Polyurethane

Poluretano líquido リキッドポリウレタン 液体聚氨酯

Flexible casting and coating resin with high impact strength and abrasion resistance.



Unit Per Pcs			
CODE	Name	Description	Content
81 29 61	Weicon Urethane 45 (Shore hardness 45)	2-component polyurethanes that cure at room temperature to a rubber-like material, remaining flexible at temperatures down to even -60°C. Adhere to a variety of materials such as metals, concrete, rubber, wood, or fibre glass.	0.5 kg
62	Weicon Urethane 60 (Shore Hardness 60)		0.5 kg
63	Weicon Urethane 80 (Shore Hardness 80)		0.5 kg
81 29 82	Primer M 100	For pre-treating non-absorbent metal surfaces (aluminium, steel, stainless steel, brass, copper, zinc, tinplate), plastics (ABS, rigid PVC, PA 6.6, FRP, SMC, PUR), lacquered surfaces, enamel, ceramics, and glass.	250 ml
81 29 83	Primer S 300	For pretreating of porous and absorbing surfaces.	250 ml

(to be continued)

CODE	Name	Description	Content
81 29 84	Colour Paste - black -	Special colour paste on the basis of finely dispersed pigments for colouring WEICON Urethanes and WEICON Casting Resin MS 1000.	250 g
81 29 86	Easy-Mix PU-90	Structural Adhesive is a high-strength, extremely fast-curing, highly viscous adhesive, which can be sanded and painted over after approx. 30 minutes. It is weather-resistant, resistant to chemicals and temperature-resistant from -55°C to +125°C.	50 ml
81 29 87	Easy-Mix PU-240	Structural Adhesive is a high-strength, extremely fast-curing, highly viscous adhesive, which can be sanded and painted over after approx. 30 minutes. It is weather-resistant, resistant to chemicals and temperature-resistant from -55°C to +125°C.	50 ml

Name of Mfr.: Weicon GmbH & Co. KG

Accessories

Unit Per Set		
81 29 88	Processing Kit	Includes: Processing spatula, short Wire mesh 138 x 210 mm, Butyl tape, Paint brush, Box cutter.

Name of Mfr.: Weicon GmbH & Co. KG

Repair Sticks

Barras de reparación

スティック型補修剤 棒形修补剂

The easy solution for all repair and maintenance works. Temperature resistant from -50°C (-58°F) up to +120°C (+248°F), briefly up to +150°C (+302°F).



CODE	Product	Content	Description
81 29 65 66	Repair Stick Aluminium	57 grm 115 grm	Putty (kneadable), aluminium-filled. For quick non-rusting repairs and bonds of metal parts. Patches and seals cracks, holes, leakages and surface damages.
81 29 23 24	Repair Stick Aqua	57 grm 115 grm	Putty (kneadable), ceramic-filled. Ideal for quick repairs on damp and wet surfaces and for underwater applications.
81 29 67 68	Repair Stick Concrete	57 grm 115 grm	Putty (kneadable), ceramic-filled. Especially for quick repairs and reconditioning of all concrete, stone and ceramic surfaces.
81 29 69 70	Repair Stick Stainless-Steel	57 grm 115 grm	Putty (kneadable), stainless steel-filled. For non-corroding repairs and reconditioning of stainless steel and other rust-proof metals.
81 29 71 72	Repair Stick Wood	28 grm 56 grm	Putty (kneadable), mineral-filled. For permanent and elastic, non-shrink repairs of wooden parts.

(to be continued)

81 29 73 74	Repair Stick Plastic	57 grm 115 grm	Putty (kneadable), plastic-filled. Especially for durable repairs of plastic parts (except for plastics such as PE, PP, PTFE, etc.).
81 29 75 76	Repair Plastic Copper	57 grm 115 grm	Putty (kneadable), copper-filled. For very quick repairs of cracks, holes and leakages even on damp and wet surfaces.
81 29 25 26	Repair Stick Steel	57 grm 115 grm	Putty (kneadable), steel-filled. Preferably used for quick and high strength repairs and bonds of metal parts.
81 29 77 78	Repair Stick Titanium	57 grm 115 grm	Putty (kneadable), titanium-filled. Temperature resistant from -50°C (-58°F) up to +280°C (+536°F), briefly up to +300°C (+572°F). For permanent, high temperature and wear resistant repairs and bonds of metal parts.

Name of Mfr.: Weicon GmbH & Co. KG

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Comparison Table of the Resin Based Maintenance Products

Description	ThistleBond (U.K.)	Weicon (Germany)	DIAMANT (Germany)	Wencon (Denmark)	Devcon (U.S.A.)	Cordobond (U.S.A.)	RedDot (Singapore)	Kansai Putty Mfg. (Japan)
CODE	81 22 16	81 29 85			81 22 47	81 23 01 / 02		
Liquid Epoxide Resin & Hardener	UPS 19000 RH Standard Resin & Hardener (Formerly TRK 19000) 225gm Unit	Casting Resin MS 1000, 1 kg (Set)	Ultrametal Steel FL 1kg & 0.5 kg (Set)		5 Minutes Epoxy 500 grm	Resin & Activator 453 grm, 906 grm (Set)	GlobalBond 201 A/B	
CODE	81 22 02	81 29 01 / 02		81 23 35 / 47	81 22 51 / 52	81 23 10		
Steel Filled Epoxy Putty	UPS 19060 SG Stick Grade Metal (Formerly TRK 19060) 125gm Unit	Plastic Metal A 500grm, 2 kg (Set)	Ultrametal Steel P 1 kg & 0.5 kg (Set)	Cream / Rapid 1 kg (Set)	Plastic Steel A, 500 grm, 1 kg, (Set)	Strong Back Steel Putty, 453 grm (Set)	GlobalBond Plastic Steel Putty A/B	MS-Iron Steel Epoxy Putty 500 gm & 1 kg (Set)
CODE		81 29 10 / 11			81 22 90			
Bronze Filled Epoxy Putty		Plastic Metal BR 500grm, 2 kg (Set)	Ultrametal Bronze P 1 kg & 0.5 kg (Set)	Rapid 1 kg (Set)	Bronze Putty BR, 500 grm (Set)			
CODE		81 29 21 / 22	81 23 96		81 22 66 / 67			
Aluminium Filled Epoxy Putty		Plastic Metal F 500grm, 2 kg (Set)	Ultrametal putty 1 kg (Set) Mixing Ratio 1:1	Rapid 1 kg (Set)	Aluminium Putty F 500 grm 1 kg (Set)		GlobalBond 633 A/B	MS-Aluminium Epoxy Putty 500 gm & 1 kg (Set)
CODE	81 22 11	81 29 05 / 06		81 23 37 / 38	81 22 56			
Steel Filled Epoxy Liquid	UPS 105 EG Metal Repair Paste (Formerly TR 105, TRK 19063) 1 kg Unit	Plastic Metal B 500grm, 2 kg (Set)	Ultrametal Steel FL 1 kg & 0.5 kg (Set)	Coating white + blue 0.5 kg (Set)	Plastic steel B, 500 grm (Set)			MS-Iron Steel Epoxy Liquid, 1 kg (Set)
CODE								
Bronze Filled Epoxy Liquid			Ultrametal Bronze FL 1 kg & 0.5 kg (Set)	Coating White + Blue 0.5 kg (Set)				
CODE						81 23 08		
Non-asbestos Filler in Powder Form						Strong Back Sealer, 113 grm (Set)		
CODE	81 22 23 / 25			81 23 39		81 23 23/24/25		
Glass Fiber Fabric	UPS 19007 GT 50mm x 50m Glass Tape (Formerly TRK 19007) Each UPS 19009 GT 100mm x 50m Glass Tape (Formerly TRK 19009) Each			Reinforcement Tape, W: 5cm x10m + W: 10cm x 20m (Rls.)		Glass Tape, W:38mm, 76mm, 100mm (Rls.)		

Description	ThistleBond (U.K.)	Weicon (Germany)	DIAMANT (Germany)	Wencon (Denmark)	Devcon (U.S.A.)	Cordobond (U.S.A.)	RedDot (Singapore)	Kansai Putty Mfg. (Japan)
CODE	81 22 31		81 23 96					
Epoxide Compound	UPS 19003 A&B Cement (Formerly TRK 19002/3) 1 kg Unit		Ultrametal Putty 1 kg (Set) Mixing Ratio 1:1					
CODE	81 22 35 / 37		81 23 89	81 23 41/31/32 /33/26	81 22 98	81 23 30		
Repair Kit	UPS 11000 A Kit (Formerly TRK 11000) Each UPS 13000 C Top Up Kit (Formerly TRK 13000) Each		Ship Repair Set (1150 / 1744)	Repair Kits 1,2,3,4 & for tanker vessels	Zip Patch (Set)	Repair Kits (Set)		
CODE		81 29 31 / 32 / 81	81 23 97	81 23 42 / 29 / 28 / 44 / 48	81 22 62 / 93			
Quick Curing	UPS 125 XFP Fast Curing Metal Paste 200gm Unit 500gm Unit	Plastic Metal SF 500grm, 2 kg (Set) Fast Metal 24 ml	Ultrametal 1250 0.5 kg (Set) Mixing Ratio 1:1 Also usable for oily surfaces	Putty: 5-minutes curing 8 x 125 grm + 4 x 125grm (Rls.) Rapid: 8 x 125grm (Set) Pipe Tape, Water Activated Pipe Repair Tape, 3 sizes (Set)	Plastic Steel 5-minute Putty SF 500 grm (Set) / Magic Bond, 		GlobalBond 202 A/B	MS-Iron Steel Ultra Curability Epoxy Putty, 300 gm (Set)
CODE		81 29 51	81 23 99	81 25 92/93/94 81 23 45 / 46	81 22 43			MS-Iron Steel Fast Curability Epoxy Putty, 500 gm (Set)
High Temperature	UPS 225 HT High Temperature Ceramic 1 kg Unit 3 kg Unit	Plastic Metal HB 300 1kg (Set), Mixing Ratio 1:1	Plasticmetal WF 1 kg (Set) Free Mixing Ratio Liquid & Putty	Ceramic Cream 1kg (set) Ceramic Coating Grey + Green, 0.5 kg (Set) Hi-temp Yellow + Green, 0.5 kg (Set)	HR- Super-3000, 500 grm (Set)		GlobalBond 203 A/B	MS-Heat & Wear Resistant Metal Epoxy Putty 500 gm (Set)
CODE		81 29 35 / 36	81 23 98	81 23 34 / 36 / 27 / 54	81 22 46	81 23 15		
Under Water	UPS 250 UW UnderWater Ceramic 4ltr Unit	UW, 0.5 kg, 2 kg (Set)	RR Metal 1 kg (Set) FREE Mixing Ratio Liquid & Putty	UW Cream 0.5 kg (Set) UW Coating Orange + brown 0.5 kg (Set) UW Putty, 1kg	UW, 500 grm (Set)	Underwater, 454 grm (Set)	GlobalBond 207 A/B	

Graphite Powder

Polvo de Grafito グラファイトパウダー 石墨粉

Powdered graphite-mir-floated. Extra finely powdered graphite for precision equipment, etc. It is more adhesive than ordinary flake graphite.



Fire Clay Powder

Polvo de arcilla Refractaria ファイヤークレーパウダー 耐火土粉面

Dry milled powder for boiler brick work, anti-fire walls, etc. Will withstand up to 1,200°C. 30 kg in a sack.



81 24 01	Graphite powder, 0.5 kg	Tin
02	" " 2.0 "	"
03	" " 5.0 "	"

Graphite Flakes

Grafito en Escamas グラファイトフレーク 石墨片

A standard lubricating graphite, particularly useful for engines, compressors, etc. Graphited surfaces improve lubrication and help oil and grease to last longer. These graphite flakes are also used as paint pigment for heat resistant and protective coats. Furnished in tins of 1, 2.5 and 5 kg.



81 24 06	Graphite flake, 1.0 kg	Tin
07	" " 2.5 "	"
08	" " 5.0 "	"

Graphite Paste

Pasta de Grafito グラファイトペースト 石墨膏

An outstanding product for high temperature application such as on cylinder head studs, face plate studs, boiler and manhead gaskets, gas burner connections, studded and threaded connections, etc. Will keep joints leakproof against oil, acids and gases which might penetrate ordinary oil mixed compounds.



81 24 11	Graphite paste, 0.5 kg	Tin
12	" " 2.0 "	"
13	" " 5.0 "	"

Pipe Joint Compounds

Compuestos para Sellado de Uniones Roscadas

パイプジョイントコンパウンド 管子螺紋密封膏

For sealing threaded joints in iron, stainless steel, brass, copper and plastic pipes used for gas, water, steam, compressed air, etc. Withstands most corrosive liquids and gases. This filler also acts as a lubricant. Furnished in a 2.5 kg tin only.



81 24 20	Compound, pipe joint, 2.5 kg	Tin
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Rock Wool (Mineral Glass Fiber)

Lana Mineral 岩綿 石棉

For building insulation, ovens, ducts, etc. of temperatures up to 600°C (1,112°F). Furnished 25 kg per bag.



Sheet		Granulated	
CODE	Size mm	CODE	Weight
81 24 32	25 x 605 x 1,820	81 24 34	25 kg
33	50 x 605 x 1,820		

Refractory Products

Productos Refractarios AGC プライブリコ製品 耐火材料产品

Plastic refractories are firebricks in plastic putty-like form which can be installed by ramming the plastics with a wooden hammer or air rammer into any shapes required. After installation, it is baked with operation temperature of the furnace itself (over 1,000°C) to form the tough walls.



Castables are refractory cements which are mixed with the proper amount of water for installation. May be poured into frames or trowelled as is the case with ordinary cement. After installation by whichever method, it hardens to a sufficient strength.

From among various types of products, the most common products are listed below.

THERVEK RM (Ramming) - Plastic refractories

Clay bonded ramming refractory with superior resistance to thermal spalling (Ramming). Plastic refractories does not require mixing, and can be rammed as they are. Clay bonded plastic refractories offer superior resistance to thermal palling.

THERVEK C (Casting / Trowelling) - Cement castables

Easy installation and excellent general-purpose characteristics. Enables easy application of refractory lining walls with superior refractoriness. Has low thermal conductivity in comparison with shaped refractories, and can contribute to energy saving. Also offers greater resistance to thermal spalling than shaped refractories. Offers an extensive lineup of products with maximum service temperatures ranging between 1,350°C and 1,800°C, and can be used for all manner of equipment.

THERVEK PAT (Patching) - Plastic refractories

Patching repair material with superior adhesive properties. These refractories are affixed firmly to the repair area by the strong adhesive power of phosphate. After heating, patching refractories display extremely strong adhesive strength in their adhesion to the base material. Patching in this way enables you to prolong the service life of your refractories by performing easy repairs.

THERVEK PX-BD - Other monolithic refractories

High-strength joint packing and bond. A paste-type product consisting of refractory aggregate and water glass binder. Can be used to fill joints by inserting a tube into the open space between brick joints and filling them directly with the product. When performing patching repairs, a thin underlay coating of PX-BD can be applied to the surface of the base material using a trowel or similar tool. Doing so increases the adhesive strength of the bond between the base material and the patching material, increasing the effectiveness of the repair. When PX-BD is heated to temperatures in excess of 500°C, chemical bonding occurs, increasing the strength of the refractory (i.e. heat setting).

CODE	Product Name	Type	Packaged in
< THERVEK RM (Ramming) >			
81 24 41	THERVEK RM-ALXAB	High Alumina Plastic Refractories	25 kg/Ctn
81 24 42	THERVEK RM-AB	Fireclay Plastic Refractories	

< THERVEK C (Casting/Trowelling) >			
CODE	Product Name	Type	Packaged in
81 24 45	THERVEK C-40	Dense Castable Refractories (Casting)	
81 24 48	THERVEK C-31		
81 24 49	THERVEK C-KLIMIX		25 kg/Bag
81 24 38	THERVEK C-TPMIX-T	Dense Castable Refractories (trowelling)	

< THERVEK PAT (Patching) >			
CODE	Product Name	Type	Packaged in
81 24 39	THERVEK PAT-515	Patching repair material	20 kg/Ctn
< THERVEK PX-BD >			
81 24 40	THERVEK PX-BD-KT	Other monolithic refractories	700 g plastic bat tube×16 pcs/Ctn

Name of Mfr.: AGC Plibrico Co.,Ltd.

81

Packing & Jointing

Anticorrosive Tapes

Cintas Anti-corrosivas 防蝕テープ 防腐蝕帶

Uses:

For protection against corrosion and the waterproofing of pipes, flanges and valves for marine use.

**Compound:**

A neutral compound based on saturated petroleum hydrocarbons (petrolatum) with inert fillers.

Fabric:

Fabric carrier free from chemical impurities, fully impregnated and coated on both sides.

Characteristics:

Unalterable in composition and plasticity over a wide range of temperatures. Slight superficial oxidation occurs in atmospheric application and renders the surface less tacky. Has a very high degree of impermeability to water. Won't crack or harden. Unaffected by vibration and highly resistant to mineral acids, alkalis and salt. Basically no VOC's (Volatile Organic Compounds) contains so it is friendly to the environment.

Specifications

Thickness	1.2 mm
Weight	1.4 kg/m ²
Elongation	20%
Temperature	For applicable 5°C to 55°C

Unit Per Rls.					
CODE	Width	Length	CODE	Width	Length
81 24 71	50 mm		81 24 73	150 mm	
77	75 mm	10 mtr	74	200 mm	10 mtr
72	100 mm		75	300 mm	

Sub-Materials for Anticorrosive Tape

Sub-materiales para Cinta Anti-corrosiva BC

防蝕テープ用補助材 辅助材料

**Paste**

A primer for increasing the adhesion of anticorrosive tapes.

Mastic

Filler or sealer on the uneven surfaces (same composition as anticorrosive tapes).

Unit Per Box				
CODE	Brand	Contents	Per Box	Weight kg
81 24 81	Paste	3 kg/can	3 cans	9
81 24 83	Mastic	0.88 kgs/bar	25 bar	22

Anti-corrosive Tapes

SeaSeal™ Sealants

Cinta anticorrosión sin VOC

VOC 対策防蝕テープ VOC 对策防腐蚀胶带

SeaSeal™ products utilize the latest viscous-elastic technology to gain superior performance in anti-corrosion or water proofing situations such as pipe, pipe joint and flange corrosion protection as well as hatch sealing, and conduit box packing. Since it has no VOC's (Volatile Organic Compounds) it is friendlier to the environment.

Properties

Impermeable to moisture and gases

Immediate adhesion to substrates

Never will crack or become brittle

Non-carcinogenic, no VOCs

Non-toxic, nonflammable

Inert material, no deterioration

NO primer needed

SeaSeal™ Tape

It is available as a quick wrap or paintable product.

In the quick wrap from it has a removable backing and a clear overlay on the topside for sealing, pipe spans, coating transitions, elbows & tees or pipe coating rehabilitation in salty and humid environments.



The paintable version has all the qualities of the quick wrap and it has a white polymer topcoat that can be painted after application.

Unit Per Rls.			
CODE	Size Width × Length	CODE	Size Width × Length
Quik Wrap		Paintable	
81 24 85	100 mm × 7.2 mtr	81 24 87	100 mm × 10 mtr
86	150 mm × 7.2 mtr	88	150 mm × 10 mtr

Name of Mfr.: InduMar Products, Inc.

SeaSeal™ Overwrap Tape

Overwraps provide additional mechanical protection to the SeaSeal tape and paste in environments where physical damage from impact or abrasion can occur. They can be PE, Vinyl or Urethane tapes.



81 24 89	Tape, Overwrap, SeaSeal™, 100 mm × 30 mtr	Rls.
90	Tape, Overwrap, Yellow/Black Non-Skid 100 mm × 18 mtr	

Usage Guide for SeaSeal Tape and Overwrap Tape

Nom. Pipe Dia	SeaSeal Quick Wrap Tape	Over Wrap Tape	Nom. Pipe Dia	SeaSeal Quick Wrap Tape	Over Wrap Tape
2	100mmx7.2mtr	100mmx30mtr	16	150mmx7.2mtr	100mmx30mtr
4	100mmx7.2mtr	100mmx30mtr	20	150mmx7.2mtr	100mmx30mtr
6	100mmx7.2mtr	100mmx30mtr	24	150mmx7.2mtr	100mmx30mtr
8	100mmx7.2mtr	100mmx30mtr	26	150mmx7.2mtr	100mmx30mtr
10	100mmx7.2mtr	100mmx30mtr	28	150mmx7.2mtr	100mmx30mtr
12	100mmx7.2mtr	100mmx30mtr			

SeaSeal™ Paste

Anti-corrosion paste ideal for submerged items such as nuts or any situations requiring an extra measure of protection.



81 24 95	Paste, anti-corrosive, SeaSeal™, 30 mm x 30 mm x 2.7 mtr	Pc.
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SeaSeal™ Sealant

Available in 30 oz tube, and allows SeaSeal to be pumped into void spaces.



- Fills voids and spaces for corrosion prevention.
- Flange and valve protection.
- Waterproofs conduits and junction boxes.

81 24 96	Sealant, anti-corrosive, SeaSeal™, 30 oz	Tub
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Flat Patch Leak Sealant Kits**STOP IT® Flat Patch**

Kits de sellado de fugas Flat Patch

修理用防水発泡テープキット 平面补漏密封胶套件



A leak sealant product designed for applications where localized repair is needed or full pipe wraps are impractical. The carbon fiber composite repair system safely and quickly restores operations up to 1,000 psi, and provides localized corrosion inhibition.

Applications can be made regardless of surface orientation (i.e., vertical or horizontal) and will result in a durable repair that will not shatter or crack, even under extreme operating conditions. Operations may resume in as little as 4 hours following application and cure under ambient conditions. Supplied in a kit with all the necessary components for field installation*.

* Installation requires no special training and involves minimal surface preparation.

Applications:

Tanks • Vessels • Large Diameter Pipes • Valve and Pump Casings • Welded Seams Rail Cars • Roofs • Drums • and More.

Shelf Life:

6 months from date of purchase when stored at 40° to 83°F (5° to 28°C).

Unit Per Set

CODE	Kit Size	CODE	Kit Size
81 24 65	4 Inch x 4 Inch (100 mm x 100 mm) Kit, yield for 2 Repairs	81 24 70	6 Inch x 6 Inch (150 mm x 150 mm) Kit, yield for 1 Repair

**Dispensing Guns for Leak Repair Kit
STOPIT® HP/Flat Patch**

Dispensing gun is not included in leak repair kit and available separately on request.

81 24 76	Dispensing Gun, 200 ml for STOPIT HP/ Flat Patch	Pc.
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**Rapid Self Fusing Repair Tapes
for Leakage, Heat Resistance**

Cintas de reparación autofusibles rápidas para fugas, resistentes al calor
漏水、耐熱用速融着補修テープ
用于防漏、耐热的快速自熔修补胶带



Specially formulated silicone rubber tapes, bond irreversibly to itself providing an insulative barrier resistant to moisture, sea water, steam water over wide temperature range from -50 to 200°C. By strongly tensing while taping, the tape will be self-bonding to each other and tightly adhere to the leaking part on pipes or hoses, even for spouting water.

Meets MIL-I-46852C and can be applied to drinking water pipes.

Specification and Characteristic

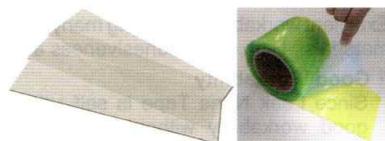
Material	Silicon Rubber	
Heat Resistance	-50°C to 200°C	
Tensile Strength	8.0 Mpa	
Expansion (%)	600%	
Pressure Resistance (kgf/cm²)	Approx. 10 kgf/cm² (Overlap depends on required pressure)	

CODE	Width x Length	Unit
81 24 78	25 mm x 2 mtr	Rls.
79	25 mm x 5 mtr	
80	25 mm x 11 mtr	
82	25 mm x 6 mtr	

Anti-Corrosive Silicone Adhesive Sheets - Catpad

Láminas adhesivas de silicona anticorrosiva

防錆・防触シリコーン粘着シート 防腐蚀硅胶粘合片



An anti-corrosive silicone adhesive sheet suitable for any repair works for long-lasting rust prevention.

Very easy application, simply cut and patch the sheet on the surface of any materials without primer and it will last rust prevention for 10-20 years. Suitable for rust repairing or reinforcing the corrosion resistance on the finished surface. Available in gray or transparent color, sheet or roll type.

- Excellent durability and weather resistance.
- Excellent airtightness and waterproofing performance.
- Excellent heat/cold resistance, and flame resistance.
- Excellent insulation up to 33.6 kV.
- Excellent anti-vibration.

Specification and Characteristic

Material	Silicone Rubber	
Thickness	1.8 mm	
Operating temperature range	-40°C to 180°C	
Tensile Strength	10 MPa	
Elongation at break (%)	800%	

CODE	Color	Type	Size	Unit
81 24 36	Grey	Sheet type	300 × 1,000 mm	Sht.
50	"	"	400 × 1,000 mm	Sht.
60	"	Roll type	50 × 3,000 mm	Rls.
84	"	"	100 × 3,000 mm	Rls.
81 24 94	Transparent	Sheet type	300 × 1,000 mm	Sht.
97	"	"	400 × 1,000 mm	Sht.
98	"	Roll type	50 × 3,000 mm	Rls.
99	"	"	100 × 3,000 mm	Rls.

Cat-Tape Clear

Cat-Tape Transparente キャットテープ 透明 Cat-Tape

Putty-like adhesive tape to patch any corrosion area. It can also be used to finish the edges or jointing sections of Catpad to increase the durability of waterproofing and rust prevention. It cures and bonds in 24 hours after application and bonds strongly to both Catpad sheets and any surfaces.



Specification and Characteristic

Material	Silicone Rubber	
Colour	Pink (Separator film) Transparent (Tape body)	
Tensile Strength	5.4 MPa	
Elongation at break (%)	730%	
Tear strength Angle type	16 kN/m	
Adhesive (between mortar)	22 N/cm	
Adhesive (Catpad)	47 N/cm	

81 25 00 Cat Tape Clear, 25 mm × 3,000 mm, 10's/pkt Pkt.

Tapes for Prevention of Leakage and Corrosion, and for Insulation

Cinta para Prevención de Filtración y Corrosión, y para Aislamiento
漏洩防止用、防食用及び電気絶縁用テープ 防漏・防腐绝缘帶



Leak None Tape #117

Excellent workability and fitting many kinds of piping or winding materials. High close-adhesiveness and self-adhesiveness.

Good Workability

Since Leak None Tape is self-adhesiveness type, it has good workability without sticking to the hands or any goods surrounding the working space. The tape, slightly tensed while taping, will adhere within 20 to 30 minutes by overlapping about every half width of tape to the material. It is not necessary to fasten by any hose band over the wrapped tape.

Applicable of Underwater Taping

Able to stop the liquid leaking (about 2 to 3 kgf/cm²) and also able to tape even in water. In this case the tape must be winded, pressing over by hand, to the material to avoid the water and trash permeating between the layer of tapes.

Applicable to Various Materials/Uses

This tape is applicable not only for protecting the leakage but also preventing the damage by salt and for electric insulation. This tape can be applied to various kinds of material, such as metal, gum, plastic resin including PVC, piping stick materials or line materials, etc.

Specification and Characteristic

Thickness and Colour	0.5 mm, Black
Expansion (%)	450
Peel Adhesion (N)	30 (20mm width)
Pressure Resistance (kgf/cm ²)	1 – 5 (4 ply) 5 – 10 (7 ply)
Weatherability	No extraordinary in 200h. by Weathermeter
Water Resistance	No extraordinary in no leak, no swelling
Ozone Resistance	No cracks, no peeling No extraordinary
Tracking Resistance OA	Liquid of Stain

* Data in the above table is actual test data, not guaranteed data.

CODE	Width × Length	Unit
81 24 91	25 mm × 10 mtr	Rls.
92	38 mm × 10 mtr	"
93	50 mm × 10 mtr	"

Name of Mfr.: Tokyo Nissin Jabara

High-Adhesive Butyl Sealing Tapes

Cintas de sellado de butil de alta adhesividad

強接着ブチルシーリングテープ 强粘力丁基密封胶带

A self-adhesive sealing tape made of a butyl rubber compound, protected by a reinforced aluminium film, making it highly resistant to ageing and oxidizing caused by atmospheric and chemical agents. Highly adhesive to all materials and especially to plastic, glass, steel, polycarbonate and wood. Especially used to repair small leaks and water infiltrations, for example around windows.



Characteristics:

Cold applied/Waterproof and self-sealing/Resistant to ageing and UV-rays/Excellent adhesion at low temperatures.

Compound color: Grey

Application temperature: 0°C/+40°C

Service temperature: -30°C/+90°C. up to 160°C for max. 24h.

Unit Per Rls.					
CODE	Width × Th mm	Length mtr	CODE	Width × Th mm	Length mtr
81 28 81	50 × 0.6		81 28 91	50 × 1.0	
82	100 × 0.6		92	100 × 1.0	
83	200 × 0.6		93	200 × 1.0	
84	300 × 0.6	10	94	300 × 1.0	
85	450 × 0.6		95	450 × 1.0	
81 28 86	500 × 0.6		81 28 96	500 × 1.0	
87	600 × 0.6		97	600 × 1.0	10

Name of Mfr.: Isolema s.p.a.

Aluminium Glass Cloth Tapes

Cinta de aluminio アルミガラスクロステープ 铝带



Suitable for taping flexible duct and for jointing insulation board.

Thickness : 0.28 mm.

Tensile strength : 4. Elongation: 15%.

Unit Per Rls.			
CODE	Width x Length	CODE	Width x Length
81 25 04	50 mm × 25 mtr	81 25 05	100 mm × 25 mtr
81 26 38	75 mm × 25 mtr		

Teflon Seal Tapes (PTFE Tapes)

Cintas de Sello Teflón テフロンシールテープ 特氟龙密封胶带

A teflon made tasteless, odourless ribbon which effectively seals a joint. Ribbon dope will withstand temperature from -100°C to +260°C. Unaffected by acids, solvents, steam, etc.

CODE	Width mm	Thick mm	mtr per roll	Packed in box	Unit Per P.c.
81 25 03	12	0.75	10	10	
01	13	0.1	5	10	
02	20	0.1	10	10	



Teflon Rounds

Redondos de Teflón テフロン丸棒 特氟龙圆棒

Processing material for teflon rounds. Standard length is 1,000 mm, up to 50 mm in diameter, and 300 mm from 60 mm to 200 mm diameter.



CODE	Diam mm	CODE	Diam mm	CODE	Diam mm	Unit Per Lgh.
81 25 06	2	81 25 18	15	81 25 30	70	
07	3	19	18	40	75	
08	4	20	20	50	80	
09	5	21	22	55	90	
10	6	22	25	60	100	
81 25 11	7	81 25 23	30	81 25 79	120	
12	8	24	35	80	125	
13	9	25	40	90	130	
14	10	26	45	98	150	
15	11	27	50	99	180	
81 25 16	12	81 25 28	60	81 26 00	200	
17	13	29	65			

Nylon Round Bars

Barras redondas de nailon ナイロン丸棒 尼龙圆棒

Made of extruded Polyamide.

Maximum temperature : -70°C to 140°C

Specific gravity : 1

Length : 1 mtr



Unit Per Lgh.

CODE	Diam mm	CODE	Diam mm
81 26 06	10	81 26 17	60
07	15	18	70
08	20	19	80
09	25	20	90
10	30	33	100
81 26 15	40	81 26 34	150
16	50		

Teflon Sheets

Plancha (Lámina) de Teflón テフロンシート

特氟龙板

Gasket material which will withstand temperature from -100°C to +260°C and is unaffected by acids, solvents, etc. and provides excellent electrical insulation. When ordering, specify the sheet thickness required.



CODE	Thick mm	Size mm	CODE	Thick mm	Size mm	Unit Per Sh.
81 25 31	1.0		81 25 41	1.0		
38	1.5		48	1.5		
32	2.0	300 x 300	42	2.0	1,000 x 1,000	
33	3.0		43	3.0		
39	4.0		49	4.0		
81 25 34	5.0		81 25 44	5.0		
35	6.0	300 x 300	45	6.0	1,000 x 1,000	
36	8.0		46	8.0		
37	10.0		47	10.0		

Teflon Cords

Cordón de Teflón テフロンコード 特氟龙线

100% Teflon material sealing which never adheres and hardens. Can be used as a free-size packing for all sizes of valve stems and tightening down glands, pipe flanges, cover gaskets and other similar applications.



81 25 51	Tefloncord, 2.4 mmΦ x 12 mtrs	Spl
52	Tefloncord, 4.0 mmΦ x 6 mtrs	Spl
53	Tefloncord, 6.0 mmΦ x 2.5 mtrs	Spl
54	Tefloncord, 8.0 mmΦ x 3 mtrs	Spl

Gore Joint Sealants

Sellador de juntas Gore ゴアジョイントシーラント

戈尔接缝密封胶

Pillar No.3300



A rope-shaped gasket made of stretched 100% PTFE with double-sided tape attached to one side. Its shape and the marshmallow-like structure make this sealant a great choice for use with flanged that have large surface areas, complex shapes, or rough surfaces.

Features & Performance:

- Inert to almost all chemicals.
- Reliable sealing performance (max 3.3 MPaG).
- Thermally resistant.

Applications

Extremely flexible and compressible, and can not only be used as a gasket but for numerous other purposes.

CODE	Nominal Size	Size W x Th x Length
81 25 61	3	1.9 x 3.6 mm x 30 mtr
	62	2.4 x 5.0 mm x 15 mtr
81 26 37	7	2.5 x 6.6 mm x 15 mtr
81 25 63	10	2.9 x 10.4 mm x 8 mtr
	64	5.8 x 13.9 mm x 5 mtr
	65	7.2 x 17.2 mm x 5 mtr
	66	4.6 x 18.8 mm x 5 mtr

PTFE Joint Sealant Tapes

CORDSEAL™ <Soft>

Cintas selladoras de juntas de PTFE

PTFE ジョイントシーラントテープ

聚四氟乙烯(PTFE)接缝密封胶带



A marshmallow-shaped free-size sealing material, which has been modified to be flexible and very tough, while maintaining the PTFE's excellent chemical resistance and heat resistance properties. These are for the temporary repairs.

Features:

- Excellent chemical resistance.
- Heat resistance.
- Good workability.

Temperature	Pressure (MPa)
-240 to 260°C/-400 to 500°F	Max 2.0 (gas), Max 5.0 (liquid)
Suitable fluids:	General fluids (water, steam, oil, etc.), solvents, corrosive liquids.
Applications:	Large diameter equipment (rough finished flange, strained flange, insufficient tightening force), tanks, heat exchangers, pressure vessels, duct flanges, pipe flanges, gland packing for valves.

Oval type**VALQUA® No. 7GS66A**

String shaped product with an oval cross-section [string type] and adhesive to improve workability.



Cross section

Unit Per Rls.

CODE	Size (mm)		Length (m)
	Width	Thickness	
81 25 71	3	1.5	30
	72	3.0	15
	73	4.0	8
81 25 74	12	5.0	5
81 25 75	16	6.0	
76	20		

Tape type**VALQUA® No. 7GS62A**

Adhesive belt-shaped product (1 to 3 mm thick) with a flat cross-section (tape type).



Cross section

Unit Per Rls..

CODE	Size (mm)		Length (m)
	Width	Thickness	
81 25 81	20	1	15
		2	5
		3	5
81 25 84	30	1	15
85		2	5
86		3	5
81 25 87	50	1	15
88		2	5
89		3	5

Rope type**VALQUA® No. 7GS64N**

Non-adhesive rope-shaped products with a round cross-section (rope type).



Cross section

Unit Per Rls..

CODE	Diam. mm	Length (mtr)	CODE	Diam. mm	Length (mtr)
81 25 67	2	40	81 25 70	8	7
68	4	20	77	10	5
69	6	10	78	12	5

Silicone Sealants

Sellador de Silicona シリコンシーラント 玻璃胶

When extruded, reacts with humidity in the air, curing inwards from the surface and becoming silicone rubber. Has outstanding adhesion to glass, ceramic, aluminum, and many plastics. Resists sunlight, weathering, water, and most chemicals. An excellent insulator, its dielectric strength is unaffected by electrical cycling or stress. Uses include potting electronic components, insulating electrical boxes, fabricating and repairing gaskets, and making expansion and contraction seals in bridges and tunnels. It is also used for general maintenance, caulking and sealing, and for production bonding. Available in 100 grm and 350 grm weight tubes.



CODE	Colour	Contents grm	Unit
81 26 01	Clear	100	Tube
02		350	
81 26 04	White (or Coloured)	100	Tube
05		350	
81 26 03	Gun for silicone sealant, 350 grm		Pc.

Sealing Agents**Permatex Form-a-Gasket**

Agentes Selladores 液状パッキン 密封剂



Available in many types of gaskets, but the 3 most common types are described below:

1. Form-a-Gasket No. 1

Hard-setting sealant. A fast-drying, hard-setting, heavy bodied sealant ideal for repairing gaskets, etc.

2. Form-a-Gasket No. 2

Pliable-setting sealant. A non-hardening, heavy bodied pliable sealant for semi permanent assemblies.

3. Aviation Form-a-Gasket No. 3

A non-hardening, liquid, brushable sealant.

Unit Per Tub or Can.

CODE	No.	Size	Container
81 26 11	1	11 oz	Tube
81 26 12	2	11 oz	Tube
14	2	1.5 oz	Tube
81 26 13	3	16 oz	Brush-top Can

Sealing Agents**ThreeBond 1100 Series**

Agentes selladores

液状パッキン 密封剂



These are series of liquid gaskets that have been developed based on a new concept and leak prevention theory that differs drastically from the ones from which conventional solid sheet gaskets have been developed. It is incorporated by being applied to the seal surfaces of the machine to prevent leaks.



CODE	No.	Feature	Size	Unit
81 26 21	1101	Non-solvent and harmless	200 grm 1 kg	Tub Can
22				
81 26 23	1102	All round use, non-drying, easy application	200 grm 1 kg	Tub Can
24				
81 26 25	1103B	For small precision parts	150 grm 1 kg	Tub Can
26				
81 26 27	1184	All round use, for large clearance application	200 grm 1 kg	Tub Can
28				
81 26 29	1105	Vibration resistance	150 grm 1 kg	Tub Can
30				
81 26 31	1141G	Water soluble and harmless	1 kg	Can
81 26 32	1107D	For high temperature application	1 kg	Can

High Temperature Resistance Inorganic Adhesives**ThreeBond No. 3732**

Adhesivo Inorgánico Resistente para Alta Temperatura 耐熱性無機接着剤 耐热无机粘接剂



Made of alumina, and high temperature resistance inorganic adhesive for temperature up to 1,400°C. Suitable for use as adhesives for ceramic, glass and other metals. Also used as the putty for electrical parts where possibly exposed to extreme high temperature.

Unit Per Pkt.

CODE	Width x Length	CODE	Width x Length
81 26 35	200 grm/pkt	81 26 36	1 kg/pkt

Pipe-Seals

Sellador Tuberias バイプシール 管封

Compounded with teflon to lubricate joint assemblies. Resistant to chemicals and can be used on pipes larger than 3/4" diam. to seal kerosenes, LP gas, oils, water, weak caustics, mild acids and low pressure steam. Performs to 500°F at moderately high pressure, will not run, drip or separate. Service temperature up to 500°F.



Unit Per Btl.

CODE	Type	Contents
81 26 51	PSBT- 8	8 oz/btl with brush top
52	PSBT-16	16 oz/btl with brush top

Name of Mfr.: SAF-T-LOK Corporation

Ferryl Pipe Sealants

Sellador de tuberías Ferryl

フェリルバイプシーラント Ferryl 管道密封剂

A multi-purpose pipe sealant designed for marine use.



Unit Per Tub.

CODE	Product No./ Unit	Application
45 04 19	Ferryl Armact Pipe Sealant 150 grm/tube	Paste-like packing that dries hard for permanent sealing of threaded pipes and flanges. Resistant to oil, petrol, most gases. Temperature and pressure-resistant.

Name of Mfr.: Ferryl Sales Limited.

Liquid-Rubber Kits

Estuches (Juego) Goma Líquida

リキッドラバーキット 液体—橡胶工具包



Formulated for on-the-spot rubber part repair. Available in liquid or paste. Dries in 2 hours at room temperature. Provides excellent flexibility, wear and abrasion resistance.

Unit Per Pkt.

CODE	Type	Contents
81 26 61	LR-5 Liquid	5 oz/pkt
62	LR-5 Paste	5 oz/pkt

Name of Mfr.: SAF-T-LOK Corporation

Polyurethane Foam Spray

Espuma de poliuretano en spray

発泡ウレタンスプレー 聚氨酯泡沫噴霧



A spray also known as Pu-Foam or construction foam. Polyurethane foam reacts rapidly with moisture in the air and expands after application, high curing and bonds extremely well to the surface due to its high adhesion power. Mainly used for assembly of doors and windows, sound and heat insulations, infilling applications, waterproof barriers etc.

81 26 63	Polyurethane Foam Spray, 400 ml	Can
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Silicone Gaskets

"Formador de Junta" Silicona para Juntas

液状シリコンガスケット 橡胶垫圈

Paste type sealing gaskets to apply to any shape of flanges, casing or cover. Due to oil resistance and anti-freeze performance, it can be applied to Oil pump, Water pump, Valve cover, Crankshaft end, Transmission case, etc. Will be tack-free within 15 minutes.



Unit Per Tub.

CODE	Contents	CODE	Contents
81 26 71	70 cc	81 26 72	300 cc

Gasket Paste

Pasta para juntas ガasketベースト 垫圈膏

Gasket Paste is an agent employed to enhance the sealing effect of gasket contact surfaces and to facilitate peeling off gaskets when disassembling joints. Please select the optimum type from the variety of products listed below.



Unit Per Can/Tube

CODE	Product Name	Applicable Temperature	Description
81 26 91	No. 5 2.5 kg/can	-200 to 200°C (-328 to 392°F)	Black paste containing special oil-soluble adhesive compounded with fine graphite particles. Suitable fluids: Water-based fluids (steam, hot water, water, seawater, acid, alkali, salt solutions and alcohol).
81 26 92	No. 5M 2.5 kg/can	-200 to 200°C (-328 to 392°F)	White paste containing special oil-soluble adhesive compounded with fine mica particles. Suitable fluids: Water-based fluids (hot water, water, seawater, acid, alkali and salt solutions), where white paste is specifically required.
81 26 93	No. 6 2.5 kg/can	-200 to 900°C (-328 to 1,652°F)	Black paste containing special water-soluble adhesive, with high oil and solvent resistance, compounded with fine graphite particles. Suitable fluids: Hydrocarbon-based fluids (petroleum-based oil, oil gas, solvents, solvent vapor, animal & vegetable oil, LNG and general gases).
81 26 94	No. 6M 2.5 kg/can	-200 to 900°C (-328 to 1,652°F)	White paste containing special water-soluble adhesive, with high oil and solvent resistance, compounded with fine mica particles. Suitable fluids: Hydrocarbon-based fluids (petroleum-based oil, oil gas, solvents, solvent vapor, animal & vegetable oil, LNG and general gases) where white paste is specifically required.
81 26 95	Sealpaste™ 800 grm/can with brush	-50 to 300°C (-58 to 572°F)	Light brown paste containing a special non-drying oil adhesive, compounded with inorganic filler material and a small amount of solvent. Suitable fluids: When handling water, air and hydrocarbons (gasoline, kerosene, lubricating oil, natural gas, LPG, refrigerants, hydrogen sulfide, ethylene, butane, and thiane), and also when it is necessary to prevent crevice corrosion on the flange surface.
81 26 96	New Valflon™ Paste 97	100 grm/ Tube 1 kg/can	Fluororesin powder that is water-dispersed using surfactant agents. Suitable fluids: When handling highly corrosive fluids (strong acids, alkalis, or halogens and when handling oxygen) when noncombustible materials are required.

Applicable Valqua® Gasket Type

Gasket Paste	Valqua® GF300	Valqua® 6500/6509	Valqua® N7030	Valqua® Metallic
No. 5	△	△	×	△
No. 5M	△	△	×	△
No. 6	×	△	×	△
No. 6M	×	△	×	◎
New Valflon™ Paste	◎	△	◎	△
Sealpaste™	○	◎	×	△

A handy adhesive device that melts and bonds materials by applying heat (80 - 100°C). Commonly supplied with solid cylindrical sticks of various diameters, made of ethylene vinyl acetate (EVA), and heated nozzle will melt them for use.



It is widely used for the materials such as Acrylic, ABS resin, metal, tile, wood, leather, natural rubber, paper, cloth, etc. When using, make sure to ventilate the working area.

81 27 31	Hot melt glue gun for 10mm stick, 110V	Pc.
32	Hot melt glue gun for 10mm stick, 220V	"
33	Stick cartridge for hot melt glue gun, 10 mm	"

General Purpose Glues

Cola Contacto 一般用万能ボンド 一般用途胶水

A general purpose adhesive of the synthetic rubber type used for bonding all sorts of materials including metals, concrete, glass, wood, plastics, paper, leather, rubber and sail cloth.



CODE	Contents	Unit
81 27 01	100 grm	Tub
02	150 grm	"
81 27 03	1.0 kg	Can
04	1.5 kg	"
05	3.0 kg	"

Wood Glues

Cola para Madera 木工用ボンド 木工用胶水

Has superior adhesion and is designed exclusively for use in general wood working. Available in many sizes, but the 1 kg tin is coded as below :



81 27 11	Glue for wood, 1 kg	Tin
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Quick Bonding Adhesives

Adhesivos Instantáneos 瞬間接着剤 迅速粘合剂

A unique adhesive which forms a strong bond instantly with almost all materials such as rubber, plastic, and metal to metal. Does not require solvents or any other special treatment. Mainly composed of alpha cyanoacrylate monomer. Harmful to the skin.



Unit Per Tub.				
CODE	Grade No.	Cont. Tube Size	Remark	Apply For
81 27 21	101	20 g 50 g	Low Viscosity & Ultra Quick Setting	Metal to Metal
22				
81 27 23	102	20 g 50 g	Medium Viscosity & Quick Setting	"
24				
81 27 25		10 g (2g×5)	Low Viscosity & Ultra Quick Setting	Rubber, Plastic Metals
26	201	20 g		
27		50 g		
81 27 28		10 g (2g×5)	Medium Viscosity & Quick Setting	"
29	202	20 g		
30		50 g		

Glue Araldite

Pegamento - Aradite アラルダイト 胶水

Epoxy type, strong adhesive, liquid glue for use with almost all materials such as metal, ceramic, glass, wood, stone, paper, leather, rubber, plastic and styro-foam, etc. This is an epoxy resin. When cured, it becomes a firm, clear, transparent gel. 10 minutes quick hardening type and 12 hours hardening standard type are available. This glue is supplied with the hardener.



Unit Per Set.

CODE	Description
81 27 41	Glue Araldite, quick, 30 cc w/hardener
42	Glue Araldite, quick, 180 cc w/hardener
43	Glue Araldite, standard, 30 cc w/hardener
44	Glue Araldite, standard, 180 cc w/hardener

Loctite® Engineering Adhesives

Adhesivos industriales Loctite ロックタイト接着剤 乐泰胶水

Loctite® technology strengthens the assembly of two or more parts by filling all the space between mating surfaces with a single-component liquid which chemically self-hardens at room temperature into a tough heat-and-solvent-resistant structural solid. From among the various types of products, the most common products are listed below.



Unit Per Btl.

CODE	Type No.	Size	Characteristics
Threadlocker (ねじゆるめ止め用嫌気性接着剤)			
81 27 51	222	50 ml 250 ml	Low Strength/Small Screw Ideal for fastener diameters of 1/4"(6 mm) and smaller. Controlled lubricity for accurate clamp loads. Parts can be separated using hand tools.
81 27 52	242	50 ml	Medium Strength A general-purpose, removable threadlocker for fasteners between 1/4" and 3/4"(M6 to M20) diameters. Controlled lubricity for accurate clamp loads. Parts can be separated using hand tools.
81 28 44	243 (Thread locker, Blue)	50 ml 250 ml	Medium Strength/Primerless A general-purpose, medium strength threadlocker with improved temperature resistance and oil tolerance. Does not require most fasteners to be pre-cleaned or primed before use. Suitable for fasteners up to 1 1/2" (M36).

Hot Melt Glue Guns

Pistolas de cola caliente ホットメルトガン 热熔胶枪

(to be continued)

CODE	Type No.	Size	Characteristics
81 28 11	248 (Thread locker, Blue)	19 ml	Semi-Solid - Medium Strength General-purpose threadlocker for all nut and bolt applications, especially fasteners up to 2" (M50). Removal with handtools. The semisolid formula also means it won't spill or leak.
81 28 46 47	263 (Thread locker, Red)	50 ml 250 ml	High Strength/Primerless A general-purpose, high strength threadlocker with improved temperature resistance and oil tolerance. Does not require most fasteners to be pre-cleaned or primed before use. Locks fasteners up to 3/4" (M20).
81 28 12	268	19 ml	Semi-Solid - High Strength Semi-solid stick is high strength prevents loosening of threaded fasteners. Well suited for fasteners up to 3/4" (M20) and is removable with heat and hand tools. Red colour is available.
81 27 46 64	270 (Thread locker, Green)	50 ml 250 ml	High Strength/Primerless A general-purpose, high strength threadlocker with improved temperature resistance. Does not require most fasteners to be pre-cleaned or primed before use. Locks fasteners up to 3/4" (M20).
81 27 56 86	290	50 ml 250 ml	Wicking Grade A medium to high-strength threadlocker for pre-assembled bolts up to 1/2"(M12). Penetrates threads by capillary action. Secures set screws and other assemblies after settings are completed. Seals welds and porous metal parts. Protects threads from rust and corrosion. Localized heating and hand tools are needed for disassembly.
Thread Sealant (金属配管用シール剤)			
81 28 48 49	55	50 ml 150 ml	Thread sealing cord for metal and plastic pipes Non curing, immediate, full pressure seal for a quick, easy and reliable seal. For pipes up to 4 in. and temperatures up to 150°C.
81 27 48	542	50 ml	Fine Threads A liquid sealant recommended for sealing the fine threads of hydraulic and pneumatic connectors.
81 28 21 22	545	50 ml 250 ml	Hydraulic/ Pneumatic Fittings Contains no fillers of particles that could contaminate system fluids, foul valves, or clog fine filters and screens. Suitable for fittings up to 2" (M50) in diameter. Excellent solvent resistance.
81 28 23 24 25	567	50 ml 250 ml 350 ml	PST Thread Sealants High Temperature Excellent solvent resistance, allows easy assembly, prevents galling, and can withstand temperatures up to 400°F (200°C). Excellent for high pressure applications, it locks and seals tapered metal, pipe threads and fittings. Ideal for stainless steel, aluminium, galvanized metal, and other inert metals. Disassembles with hand tools.

Low Strength Low strength sealant with moderate fixture speed for use on coarse threads.	81 27 62 94	572	50 ml 250 ml
Coarse Threads Medium strength, general-purpose sealant for use on coarse, threaded components.	81 27 49 95	577	50 ml 250 ml
Flange Sealant (フランジシール剤)			
Gasket Eliminator Gap Filling Flange Sealant A single-component, instant, low-pressure seal that fills gaps to 0.762mm (0.030").	81 27 61	504	250 ml
Gasket Eliminator Flange Sealant Makers flexible gaskets for rigid machined flanges with less than .127mm (.050" gap). Flexes with flanges that move in service.	81 27 90 91	515	50 ml 300 ml
Semi-flexible gasketing product for machined metal flanges. Ideal for use on rigid iron, steel and aluminium flanges.	81 28 13 14 19	518	25 ml 50 ml 300 ml
Rigid Assembly Gasketing Products Anaerobic, fast curing (unprimed 1-12hrs, primed 15min. to 2hrs), thixotropic, can fill gap until 0.254mm (0.01") without prime and 0.508mm (0.02") with prime. Suitable for gasket sealing within temperature range -54°C to 150°C (-65°F to 300°F). The products cures when confined in the absence of air between close fitting metal surfaces. Orange colour is available.	81 28 35 81 27 47	574	50 ml 250 ml
Gasketing product for sealing rigid flanges, especially aluminium flanges; excellent chemical resistance; superior adhesion, can tolerate slight oil contamination on the flange surface.	81 28 20 34	5188	50 ml 300 ml
Blue, High Performance RTV Silicone Gasket Maker Forms tough, flexible gaskets directly on the flange. Offers excellent adhesion to oily surfaces. Low odor, non-corrosive, low volatility. Withstands temperatures to 260°C (500°F) intermittent. Resistant to most chemicals and solvents. Fill gaps to 6.35mm (0.25"). Typical applications include valve covers, rocker covers, oil pans, water pumps, end seals, intake manifolds, and rear axle housings. Excellent adhesive for bonding and repairing fabricated silicone gaskets.	81 28 37 38 39	587	70 ml 190 ml 300 ml
Black, High Performance RTV Silicone Gasket Maker Retains high flexibility and oil resistance for longer gasket life. Temperature range is -59°C to 329°C (-75°F to 625°F) intermittent. Low odor, non-corrosive, low volatility. Resistant to most chemicals and solvents. Fill gaps to 6.35mm (0.25"). Typical applications include oil pans, transmission pans, valve covers, valves and guides, timing gear covers, and differential covers.	81 28 41 42 43	598	70 ml 190 ml 300 ml

Unit Per Btl.

CODE	Type No.	Size	Characteristics
81 27 92 93	5699	95 grm 300 ml	Grey High Performance RTV Silicone Gasket Maker For flexible flange assemblies. Excellent fluid resistance. Easy to dispense, non-corrosive. Low odor, low volatility.
Retaining Compound (はめ合いで用嫌気性接着剤)			
81 27 96 97	603	50 ml 250 ml	Press Fit/Oil Tolerant A retaining compound tolerant of oil and other contamination. Seals and secures cylindrical assemblies up to 0.127 mm (0.005") radial clearance. Fixtures in 10 minutes. Prevents fretting and corrosion of metal assemblies. Good for close-fitting parts.
Slip Fit/High Temperature A high temperature (450°F), high viscosity liquid retaining compound. Provides shear strength of over 3,800 psi on steel. Locks and secures metal cylindrical assemblies up to 0.381 mm (0.015") diametral clearance. Prevents metal fretting and corrosion. Seals against leakage. Typical applications include locating pins in radiator assemblies, sleeves into pump housings and bearings in auto transmissions.			
81 28 26 27	620	50 ml 250 ml	Slip Fit/Maximum Strength A maximum strength retaining compound for use where high dynamic force or cyclic loading is expected. Locks cylindrical assemblies up to 0.010 in. Diametral clearance. Fixtures in 5 minutes.
81 28 28 29	638	50 ml 250 ml	High Strength/Rapid Cure A retaining compound recommended for continuous working temperatures up to 149°C (300°F). Fills gaps up to 0.1524 mm (0.006") diameter clearance. Fixtures in 5 minutes. Good for close-fitting parts.
81 27 50 98	648	50 ml 250 ml	Quick Metal Retaining Compound A creamy, non-running gel that is applied onto cylindrical parts to fill surface imperfections and repair worn areas. It contains no metal, but once assembled hardens to a strength that often doubles that of a press fit. Used for repairing worn coaxial parts without remachining; enables reuse of worn bearing seats, keys, splines, tapers or for retaining shims.
81 28 30	660	50 ml	Slip Fit/ High Strength A high strength, high viscosity room-temperature-curing adhesive used to join fitted cylindrical parts. It fixtures in 10 minutes and provides a shear strength of 4,000 psi after 24 hours. Capable of filling diametral gaps up to 0.27mm (0.015"). Allows relaxed machining tolerances and replaces clamp rings, set screws, and snap rings.
81 28 31 32	680	50 ml 250 ml	

(to be continued)

Toolboxes & Specialty Kits (スペシャルボックスキット)

81 28 33	-	12.9 ml	Form-A-Thread Stripped Thread Repair Kit Permanently repairs stripped threads and fasteners in 5 minutes (up to SAE Grade 5 English and 8 metric). Allows up to 1.538 in. lbs. torque (on M25 bolt) and 300°F. Resists most shop fluids. Grey colour is available.
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Loctite® Marine Maintenance & Emergency Repair Kits

Equipo de mantenimiento y de 緊急補修キット 应急修补套组

A "must have" solution kit for general maintenance and emergency repair for every vessel. The Marine Maintenance & Emergency Repair Kit provides solutions from simple vibration-proof bolt fastening to emergency pipe repair in open sea. Applications include thread locking, thread sealing, retaining, flange sealing & gasketing, emergency metal rebuilding & pipe repair, anti seize and bonding. The kit contains the following products.



Contents

1 btl	Thread locker	, No.222, 50 ml
1 btl	Same	, No.242, 50 ml
1 btl	Same	, No.243, 50 ml
1 btl	Same	, No.262, 50 ml
1 btl	Same	, No.271, 50 ml
1 btl	Same	, No.277, 50 ml
1 btl	Same	, No.290, 50 ml
1 btl	Cyanoacrylate adhesive	, No.401, 20 grm
1 tub	Same	, No.454, 20 grm
1 btl	Same	, No.495, 20 grm
1 pc	Metal Magic (Stick)	, 4 oz
1 pc	Underwater repair (Stick)	, 4 oz
1 set	Pipe repair kit (Tape), W 50 mm x L1,800 mm/W100 mm x L 3,600 mm	
1 set	Foam A Thread	, 4.8 ml
1 tub	Flange sealant	, No.515, 50 ml
1 tub	Same	, No.574, 50 ml
1 tub	Same	, No.5699, 70 ml
1 btl	Thread sealant	, No.542, 50 ml
1 tub	Same	, No.577, 50 ml
1 can	Marine anti seize	, 8 oz
1 btl	Retaining compound	, No.603, 50 ml
1 btl	Same	, No.648, 50 ml

81 21 71	Marine maintenance & emergency repair kit, Loctite® 1068255	Set
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Instant Adhesives (Cyanoacrylates) Loctite®

Adhesivos instantáneos 瞬間接着剤 瞬间粘合剂

Loctite® instant adhesives cure very quickly when confined between surfaces, triggered by the humidity on the surfaces. Cyanoacrylates are chosen for bonding small parts to achieve extremely fast fixturing. They are clean and easy to apply and join a wide variety of dissimilar materials. From among the various types of products, the most common products are listed below.



CODE	Type No.	Size	Characteristics
81 27 87 88	401	20 grm 50 grm	PRISM Surface Insensitive Instant Adhesive A general-purpose surface insensitive adhesive for difficult-to-bond surfaces.
81 28 15 16	404	4 oz 1 lb	Quick Set Instant Adhesive For general maintenance and repair. Designed for bonding of plastics and elastomeric materials where very fast fixturing is required.
81 28 17 40	406	20 grm 50 grm	Wicking Grade Designed for bonding plastics and elastometric materials where very fast fixturing is required.
81 27 79 89	454	3 grm 20 grm	PRISM Surface Insensitive Instant Adhesive Gel Designed for the assembly of difficult-to-bond materials that require uniform stress distribution. Particularly suited for bonding porous or absorbent materials. Also formulated for faster cure speeds on dry or acidic surfaces and substrates.
81 28 18	480	20 grm	Rubber-toughened Instant Adhesive Low viscosity, elastomer-modified instant adhesive. Bonds metals and rubbers. Excellent peel, impact and shear strength. NSF/ANSI 61 certified for potable water.
81 27 58	495	20 grm	Super Bonder Instant Adhesive A general purpose adhesive designed to bond rubber, metal, and plastic parts with gaps to 0.1016mm (0.004").
81 27 59	496	20 grm	General Purpose Rubber Bonding.
81 28 00	3090	10 grm	Gap filling general purpose 2K instant adhesive; for gaps up to 5mm.
81 28 02	HY4060GY	25 grm	Repair Structural Hybrid Adhesives Excellent environmental and temperature resistance. Outstanding substrate versatility. Simple hand mix solution.

Cleaner and Activators

Loctite

Limpador y activadores 洗净活性剂 洗涤活性剂

Before bonding surface cleaners.



Unit Per Can

CODE	Contents	Description
Loctite® SF7063 Universal Cleaner & Degreaser Before Bonding		
81 27 36 37	400 ml 10 ltr	General Purpose Cleaner & Degreaser Solvent-based, removes most greases, oils and lubrication fluids from all surfaces, leaves no residues; ideal for use prior to bonding and sealing applications.
Loctite® SF7649 Activator		
81 27 38 39	150 ml 500 ml	Activator to speed up cure on passive and inactive surfaces; suitable for threadlocking, pipe and threadsealing, gasketing and retaining applications; solvent-based; on-part life of up to 30 days.

Adhesives SAF-T-LOK

Adhesivos - SAF-T-LOK サフ・ティー・ロック接着剤 粘合剂

SAF-T-LOK anaerobic adhesive/sealants reliably lock, retain and seal metal assemblies in a wide range of applications. By eliminating the loosening of assembled components, costly breakdown is prevented and damage to equipment from vibration and shock is avoided. From among the various types of products, the most common products are listed below.



Unit Per Btl.

CODE	Type No.	Size cc	Characteristics
81 27 65	T22	50	Low strength, holds screws, but allows adjustment.
81 27 66	T42	50	Medium strength, locking & sealing screws & bolts.
81 27 67	T70	50	High strength, locking & sealing screws & studs to 1/2" diameter.
81 27 68	T77	50	High strength, locking & sealing studs over 1/2" diameter, sealing flanges.
81 27 69	S90	50	Medium strength, sealing porosity (Weld beads / Castings).
81 27 70	SA5	50	Bonds metal, plastic & wood.
81 27 71	IB45	20	Bonds in second, bonding rubber or plastic parts.
81 27 72	IBM100	20	Bonds in second, bonding metal parts. Excellent for nameplating.
81 27 73 74	PFS	50 250	Sealing metal flanges. Any size or shape gaskets.
81 27 75 76	TPS	50 250	Instantly seals tapered threads hydraulic pipe, etc.
81 27 77	R01	50	Retaining bearing / bushing, gears and pulleys, sealing porosity.
81 27 78	Primer	6 pz	Primer to accelerate, cure, or cure at temperature below 0°C.

WEICON Epoxy Adhesives

Adhesivos epóxicos WEICON エポキシ系接着剤 环氧树脂粘合剂

WEICON Epoxy Adhesives are cold-curing, solvent-free two-component systems with extremely strong bonding properties. They enable material bonds with high tensile and impact strength and are thus ideal for assembly, repairs and production.



Unit Per P.c.

CODE	Product	Content	Description
81 29 80	Epoxy Minute-Adhesive	24 ml	Viscous, self-levelelling, very short pot life, fast-curing, transparent. Produces residually elastic bonds with high impact strength on metal, plastic, fibre-reinforced materials, ceramics, glass, stone and wood.
81 29 81	Fast-Metal Minute-Adhesive	24 ml	Highly filled, pasty, very short pot life, fast-curing, gap-filling. Ideal for repairs and bondings with larger bonding gaps or bigger tolerances.

Name of Mfr.: WEICON GmbH & Co. KG

WEICON RK-Construction-Adhesives

Methacrylate-based Adhesives

Adhesivos con base de metacrilato

メタクリレート系接着剤 甲基丙烯酸脂粘合剂

Used in many bonding applications in the marine industry – especially in environments where epoxy adhesive are not strong enough (for example due to high temperature, vibration, shocks and structural demands).



- Quick and high initial bonding strength (mechanical durability after 8 – 9 min.).
- Residual elasticity and impact resistance.

Typical Applications:

- Bonding name plates, controls, instruments, consoles for machines.
- Bonding galvanized profile sheets for cabins.
- Magnet bonding.
- Bonding metal and plastic laminates, sandwich elements for ship construction.

Unit Per Pcs.

CODE	Product	Content	Description
81 29 91	RK-1300	60 g	Pasty, high-strength, fast-curing 2-component adhesive with high impact, peel and shear strength. For bonding large surfaces of many different materials such as metals, ferrites and rigid plastics.
81 29 92	RK-1500	60 g	2-component adhesive, liquid, high-strength, fast-curing. For bonding glass, metal and ceramics.
81 29 94	RK-7000	50 g	Slow-curing, high-strength, impact-resistant, residual elasticity. For bonding plastics, metals and ceramics with high tensile, shear and peel strength. It is particularly suitable for structural bondings where high strength connections are required.
81 29 95	Easy-Mix Hand Dispenser D 50	-	Very robust, break-proof, and made of fibreglass-reinforced plastic (polyamide). The dispenser is equipped with a metal transport lever. Suitable for all Easy-Mix types except PE-PP.
81 29 96	Quadro Mixing Nozzle	-	Suitable for RK-7000/-7100/-7200, Easy-Mix types S 50, N 50, N 5000, Epoxy Minute Adhesive, Easy-Mix PU-90/PU-240.

Name of Mfr.: WEICON GmbH & Co. KG

WEICONLOCK®

Anaerobic Adhesives and Sealants

Adhesivos y selladores anaerobios

嫌気性接着剤、及びシール材 氣性粘合剂, 及密封胶材料

The ideal solution for construction, production and maintenance: WEICONLOCK® products are high quality anaerobic adhesives and sealants on the basis of special methacrylate resins, especially made for economical threadlocking, retaining and sealing of threaded, cylindrical and pipe assemblies. The Pen-System packaging offers easy dosing and application.



Unit Per Pcs.

CODE	Product	Content	Description
81 52 01 02 03	AN 302-22	20 ml 50 ml 200 ml	Threadlocking, vibration-proof, medium viscosity, low strength, easy to disassemble, classified as non-hazardous
81 29 12 13 14	AN 302-43	20 ml 50 ml 200 ml	Threadlocking, approved to DVGW2 and KTW1, higher viscosity, medium strength, normal to disassemble.
81 52 04 05 06	AN 302-60	20 ml 50 ml 200 ml	Threadlocking for passive materials medium viscosity, high strength, hard to disassemble, drinking water approval
81 29 15 16 17	AN 302-70	20 ml 50 ml 200 ml	Threadlocking, medium viscosity, high strength, hard to disassemble, drinking water and DVGW approval.
81 52 07 08 09	AN 302-90	20 ml 50 ml 200 ml	Threadlocking, for locking after mounting and sealing of hairline cracks, extremely low viscosity, high strength, hard to disassemble.
81 29 18 19 20	AN 305-42	20 ml 50 ml 200 ml	Sealing of hydraulic and pneumatic systems. DVGW2 certified, medium viscosity, medium strength. Gap filling capacity max. 0.15 mm.
81 52 10 11	AN 305-72	50ml 200 ml	Pipe and flange sealing (with PTFE), DVGW2 certified, high viscosity • medium strength.
81 52 12 13	AN 305-74	50 ml 200 ml	Gasketing of flanges, gear boxes and motor housings, high viscosity, high strength, hard to disassemble.
81 52 14 15	AN 305-77	50 ml 200 ml	Universal type for pipes and fittings, drinking water and DVGW approval BAM, high viscosity, medium strength, disassembly with normal tools
81 52 16 17 18	AN 306-01	20 ml 50 ml 200 ml	Retaining cylindrical assemblies for bearings, shafts and bushings, low viscosity • high strength • hard to disassemble.
81 52 19 20 21	AN 306-30	20 ml 50 ml 200 ml	Retaining cylindrical assemblies for passive materials, BAM3 certified, drinking water approval, higher viscosity, high strength, hard to disassemble.
81 52 22 23 24	AN 306-38	20 ml 50 ml 200 ml	Retaining cylindrical assemblies for bearings, gear wheels and bolts, fast cure, drinking water approval, medium viscosity, high strength, hard to disassemble
81 52 25 26 27	AN 306-41	20 ml 50 ml 200 ml	Retaining cylindrical assemblies for bearings, shafts and bushings, medium viscosity, medium strength, disassembly with normal tools.

Name of Mfr.: WEICON GmbH & Co. KG

81

Packing & Jointing

WEICON Plast-o-Seal®

Silicone Free Universal Sealant

Sellador universal sin silicona

シリコンフリー万能シーラント 无硅胶万能密封剂

Permanently plastic, non-dripping and silicone-free universal sealant (max. gap filling capacity up to 0.1 mm). For bigger gaps in combination with a mechanical seal.

Solvent-free.



Unit Per Pcs.

CODE	Product	Content	Container	Colour
81 52 31		90 g	Tube	
32	Plast-o-Seal®	120 g	Brush Top Can	
33		300 g	Cartridge	Blue

Name of Mfr.: WEICON GmbH & Co. KG

WEICON Contact Adhesives

Pegamento de contacto WEICON

コントクト型接着剤

WEICON 接触型胶粘剂



Unit Per Can

CODE	Product	Content	Description
81 52 37	GMK 2410	350 g	A solvent-based Polychloroprene (CR) contact adhesive. Used for strong and flexible full-surface bonding of rubber to rubber and rubber to metal. It also bonds cellular rubber (e. g. neoprene), leather, felt, insulating material, textiles, wood, and many plastics. After curing, the joint is resistant to humidity.
38		700 g	
81 52 39	GMK 2510	324 g	2-component adhesive based on polychloroprene for full-surface and permanently elastic bonding of parts which are continuously exposed to dynamic loads. It bonds rubber, metal, textiles, leather, sponge rubber (neoprene), CSM (Hypalon), insulating materials, PU materials with an adhesive coating, wood and many plastics, to themselves and among each other. After curing the bonding is moisture-proof.
40		690 g	

Name of Mfr.: WEICON GmbH & Co. KG

WEICON Contact Cyanoacrylate Adhesives

Adhesivos instantáneos de contacto de cianoacrilato WEICON

瞬間接着剤 瞬间粘合剂

Cold-curing one-component adhesives, free of solvents. They quickly polymerize by reacting with moisture and cure under light pressure. They will bond within seconds almost all materials to and among each other, such as: metals, plastics, glass, ceramics, wood, leather, natural and synthetic rubber.



Unit Per Pcs.

CODE	Product	Content	Description
81 52 41	VA 8312	12 g	Cyanoacrylate adhesive for rubber and plastic, low viscosity, very fast curing, ISEGA-certified.
42		30 g	
43		60 g	
44		500 g	
81 29 27	VA 100	12 g	Cyanoacrylate adhesive for rubber and plastic, medium viscosity, slightly longer cure time, ISEGA-certified.
28		30 g	
29		60 g	
30		500 g	
81 52 45	VA 1401	12g	Cyanoacrylate adhesive for rubber and plastic, low viscosity, very fast curing, NSF registration.
46		30 g	
47		60 g	
48		500 g	
81 52 49	VA 2500	12g	Cyanoacrylate adhesive for special requirements, high-temperature-resistant, high viscosity, slow curing, cures with residual elasticity, high peel and impact strength.
50		30 g	
51		60 g	
52		500 g	
81 52 53	VA 30	12 g	Cyanoacrylate adhesive for special requirements, rubber-filled, high-temperature-resistant, medium viscosity, longer curing, cures with residual elasticity, high peel and impact strength.
54		30 g	
55		60 g	
56		500 g	
81 52 57	VA 250 Black	12 g	Cyanoacrylate adhesive for special requirements, rubber-filled, high-temperature-resistant, high viscosity, slow curing, cures with residual elasticity, high peel and impact strength.
58		30 g	
59		60 g	
60		500 g	
81 52 61	Contact GEL	30 g	Thixotropic (pasty), slow curing, for application on vertical surfaces. Allows re-alignment of the parts after contact.

Name of Mfr.: WEICON GmbH & Co. KG

WEICON One-component Adhesives and Sealants

Adhesivos y selladores WEICON de un componente

一成分性接着剤・密閉材

单组分粘合剂密封材料

Elastic adhesives and sealants are used in many areas of industrial production and assembly. They combine the advantages of adhesive bonding and sealing technology and are used wherever the elasticity and the sealing of a joint are the most important requirements.



Unit Per Pcs.

CODE	Product	Colour	Content	Description
81 52 71	Flex 310 M Classic			For versatile use. Very good adhesion without primer on aluminium, stainless steel and many other surfaces. Immediately overpaintable (wet in wet). Excellent aging and UV stability. Sandable after curing.
72		White	310 ml	
73	MS-Polymer base	Black Grey		

(to be continued)

CODE	Product	Colour	Content	Description	Unit Per Pc.
81 52 74	Flex 310 M Stainless Steel  MS-Polymer base	Stainless steel	310 ml	Suitable for various applications. Especially for applications where the colour of the sealant should be close to the colour of material (e.g. stainless steel, aluminium, etc.) Non-corrosive.	
81 52 75 76	Flex 310 M Super-Tack MS-Polymer base	White Grey	290 ml	Very high initial strength. For metals, plastics and many other materials. In particular suitable for bonding on vertical surfaces, indoor and outdoor. Replaces screws, pegs, rivets, and other traditional fixings.	
81 52 78	Flex 310 M HT 200 MS-Polymer base	Grey	310 ml	High temperature resistant. Very good adhesion on metal and most plastics. Allows bonding and sealing of parts before thermal coating (e.g. powder coating).	
81 52 88	Flex 310 M FireSeal	Grey	310 ml	A permanently elastic adhesive and sealant based on SMP with a fire resistance up to 120 minutes. Tested and classified for all joint structures according to EN 1366-4.	
81 52 89	Flex 310 m ProSeal	Grey	310 ml	Multi-purpose, permanently elastic, fast-curing and high-strength 1-C adhesive and sealant based on SMP. Neutral curing, entirely weather-resistant, very low emissions and odour as well as free of silicone, isocyanate and solvents.	
81 52 79 80 81	Aqua-Flex  MS-Polymer base	White Black Grey	310 ml	Special adhesive and sealant for a variety of applications, also on wet and humid surfaces. Free of isocyanate and solvents.	
81 52 82 83	Silicone HT 300	Red	85 ml 310 ml	Temperature resistant up to +230°C (+446°F), briefly up to 300°C (+572°F).	
81 52 84 85 86	Black Seal Special Silicone	Black	85 ml 200 ml* 310 ml *Pressure-pack	Solvent-free special silicone sealant. Temperature resistant from -60°C (-76°F) up to +280°C (+536°F) (briefly up to +300°C (+572°F)).	

(to be continued)

81 52 87	Flex + Bond 	Grey	85 ml	Strong, permanently elastic, temperature-resistant from -40°C to +90°C (-40°F to +194°F), weather-resistant, resistant to UV rays, ageing and salt water, paintable (wet-on-wet), sandable. It is free of silicone, isocyanate, halogens and solvents.
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Name of Mfr.: WEICON GmbH & Co. KG

Gasket Removers

Spray Quita-junta ガスケットリムーバー 垫圈清洗液

Removes gaskets from any type of assembly in 10 to 15 minutes. Prepares metal parts for new gaskets, eliminating scraping and sanding.



Works on wood; non-corrosive on aluminium.

Not for use on plastics, linoleum or synthetic fibers.

81 28 01 Gasket remover spray, 400 ml

Tin

"O" Rings

Junta Tórica Neopreno O リング 0型密封圈

Made from synthetic or natural rubber or teflon. When ordering, specify the material, outer and inner diameter as well as thickness. Since there are thousands of sizes available, only a basic illustration is given here.



81 30 01 "O" ring, material, outer diam x inner diam x thickness

Pc.

Rubber Strings

Cordón Tórico Neopreno ゴムひも 橡皮带

Synthetic rubber made round string for forming "O" rings with glue, etc. Any length is furnishable upon request.

Unit per Mtr.

CODE	Diam mm	CODE	Diam mm	CODE	Diam mm
81 30 51	1.5	81 30 56	4.0	81 30 61	6.5
52	2.0	57	4.5	62	7.0
53	2.5	58	5.0	63	8.0
54	3.0	59	5.5	64	9.0
55	3.5	60	6.0	65	10.0



O-Ring Splicing Kits

Estuches para Articular O-Ring O リング作成キット 0形环接头工具

Saves the need for complete disassembly. Eliminates the need for an inventory of different sized O-rings. Joints resist water/oil and are as strong as the rubber itself.



Kit contains:

1. 5.48 meter (3 ft.) lengths of common diameters of Buna N cord
2. 1 of Loctite 404 Quick Set Instant Adhesive
3. 1 of o-ring fixture.
4. 1 of blade.
5. 1 each of water-proofing solution and cleanup solution

81 30 70 O-Ring splicing kit

Set

Loctite Product No.00112 (480166 for U.K.)

O-Ring Kits

Estuche Junta Tórica Pulgadas O リングキット O型密封圈工具包

Specially designed for marine use, containing 17 sizes/222 pieces. Packed in a transparent sturdy-hinged acrylic case. Details of the sizes are as follows:



Width x I.D. x O.D. inch

1/16×5/32×9/32	1/16×7/32×11/32	1/16×5/16×7/16
3/32×3/8×9/16	3/32×7/16×5/8	3/32×1/2×11/16
3/32×9/16×3/4	3/32×5/8×13/16	3/32×11/16×7/8
3/32×3/4×15/16	1/8×3/4×1	1/8×13/16×1-1/16
1/8×7/8×1-1/8	1/8×15/16×1-3/16	1/8×1-1/16×1-5/16
1/8×1-3/16×1-7/16	1/8×1-3/8×1-5/8	

81 30 72 O-Ring kit, 17 sizes/222 pcs with acryl case Set

Copper Ring Kits

Estuche Arandela Cobre コッパー リングキット 铜圈工具包



Specially designed for marine use. Contains 30 sizes/568 pieces packed in a transparent sturdy-hinged acrylic case. Details of the sizes are as follows:

I.D. x O.D. x TH mm

5×9×1	6×10×1	6×12×1	8×12×1	8×14×1
8×14×1.5	9×14×1	10×14×1	10×14×1.5	10×16×1
12×16×1	12×16×1.5	12×18×1.5	13×18×1	14×18×1.5
14×20×1.5	14×20×2	16×20×1.5	16×22×1.5	18×22×1.5
18×24×1.5	20×24.5×1.5	20×24.5×0.8	19×26×2	22×27×1.5
22×29×1.5	24×29×1.5	24×32×2	26×34×2	28×36×2

81 30 80 Copper ring kit, 30 sizes/568 pcs with acryl case Set

Raised Face PTFE Rings

Aros de PTFE de cara saliente PTFE リング PTFE 环

Made of PTFE (Polytetrafluoroethylene), and used for gasket ring with chemical resistance property.



PO 850 - PN 16

Unit Per Pcs.

CODE	Nominal Size	Size mm OD x ID x TH	Article No.
81 34 01	10	45 x 18 x 2	PO850010
02	15	50 x 22 x 2	PO850015
03	20	60 x 28 x 2	PO850020
04	25	70 x 35 x 2	PO850025
05	32	82 x 43 x 2	PO850032
81 34 06	40	92 x 49 x 2	PO850040
07	50	107 x 61 x 2	PO850050
08	65	127 x 77 x 2	PO850065
09	80	142 x 90 x 2	PO850080
10	100	162 x 115 x 2	PO850100
81 34 11	125	192 x 141 x 2	PO850125
12	150	218 x 169 x 2	PO850150
13	200	273 x 220 x 2	PO850200
14	250	330 x 274 x 2	PO850250
15	300	385 x 325 x 2	PO850300
81 34 16	350	438 x 368 x 2	PO850350
17	400	490 x 420 x 2	PO850400
18	600	775 x 645 x 2	PO850600

PO 860 - PN 16

Unit Per Pcs.

CODE	Nominal Size	Size mm OD x ID x TH	Article No.
81 34 21	10	45 x 18 x 3	PO860010
22	15	50 x 22 x 3	PO860015
23	20	60 x 28 x 3	PO860020
24	25	70 x 35 x 3	PO860025
25	32	82 x 43 x 3	PO860032
81 34 26	40	92 x 49 x 3	PO860040
27	50	107 x 61 x 3	PO860050
28	65	127 x 77 x 3	PO860065
29	80	142 x 90 x 3	PO860080
30	100	162 x 115 x 3	PO860100
81 34 31	125	192 x 141 x 3	PO860125
32	150	218 x 169 x 3	PO860150
33	200	273 x 220 x 3	PO860200
34	250	330 x 274 x 3	PO860250
35	300	385 x 325 x 3	PO860300
81 34 36	350	438 x 368 x 3	PO860350
37	400	490 x 420 x 3	PO860400
38	600	775 x 645 x 3	PO860600

PO 870 - ASA 150 lbs

Unit Per Pcs.

CODE	Nominal Size	Size mm OD x ID x TH	Article No.
81 34 41	15	47 x 21 x 2	PO870015
42	20	57 x 27 x 2	PO870020
43	25	66 x 33 x 2	PO870025
44	32	76 x 42 x 2	PO870032
45	40	85 x 48 x 2	PO870040
81 34 46	50	104 x 60 x 2	PO870050
47	65	123 x 73 x 2	PO870065
48	80	136 x 89 x 2	PO870080
49	100	174 x 114 x 2	PO870100
50	125	196 x 141 x 2	PO870125
81 34 51	150	222 x 168 x 2	PO870150
52	200	279 x 219 x 2	PO870200
53	250	339 x 273 x 2	PO870250
54	300	409 x 324 x 2	PO870300

PO 880 - ASA 150 lbs

Unit Per Pcs.

CODE	Nominal Size	Size mm OD x ID x TH	Article No.
81 34 61	15	47 x 21 x 3	PO880015
62	20	57 x 27 x 3	PO880020
63	25	66 x 33 x 3	PO880025
64	32	76 x 42 x 3	PO880032
65	40	85 x 48 x 3	PO880040
81 34 66	50	104 x 60 x 3	PO880050
67	65	123 x 73 x 3	PO880065
68	80	136 x 89 x 3	PO880080
69	100	174 x 114 x 3	PO880100
70	125	196 x 141 x 3	PO880125
81 34 71	150	222 x 168 x 3	PO880150
72	200	279 x 219 x 3	PO880200
73	250	339 x 273 x 3	PO880250
74	300	409 x 324 x 3	PO880300

Air Filters

Filtros para Aire エアーフィルター 空气过滤垫



So called vleoon filter made by combining teflon and nylon into filter form. Usually used as an air conditioning intake filter. Will be furnished in sizes 10 to 20 mm thick.

CODE	Size mm		CODE	Size mm	
	T	W		T	W
81 31 01	10	1,600	81 31 03	20	2,000
02	15	1,600			

Terry Cloth

Tejido de rizo 麻・綿フィルター生地 棕色过滤布

For straining or filtering water, oil, etc. Specify the width and type required, towel or brown filter cloth, when ordering. Furnished in rolls.



How to order: CODE

KIND of CLOTH, WIDTH mm × LENGTH mtr

Unit Per Rls.

CODE	Description	Size	
		W mm	L mtrs
81 31 11	Brown Cloth	760	20
12	Towel Cloth	760	33
13	"	910	33

Vinyl Acetate Sponge Water Sheet Filters

Wet Type

Plancha Esponja de Vinilo para Filtro

酢酸ビニールスponジシート 海绵(湿型)



Synthetic made sponge filter ideal for immersion in any cascade tank or sump for filtering of hydraulic systems, coolant fluids, etc. Size is 1,000 × 1,000 mm and 10 mm thick. Colour is milky white.

81 31 20	Filter, water, vinyl acetate sponge sheet, 10 × 1,000 × 1,000 mm	Sht
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Vinyl Acetate Sponge Piece Filters

Wet Type

Piezas Esponja de Acetato de Vinilo para Filtro

酢酸ビニールピース 碎海绵(湿型)



Same as the above filter but in pieces packed 1 kg in polythene bag.

81 31 22	Filter, water, vinyl acetate sponge piece, 1 kg	Bag
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Vinyl Acetate Sponge Oil Filters

Dry Type

Esponja de Acetato de Vinilo para Filtro de Aceites

酢酸ビニールスponジフィルター 濾油海绵(干型)



Specially designed for filtering lubricating oil, etc. Size furnished 2 mm thickness, 1,000 × 1,000 mm (39" × 39") of width and length.

81 31 24	Filter, oil, vinyl acetate sponge, 1,000 × 1,000 mm	Sht
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Coco Fiber

Fibra de Coco ココファイバー 椰子纤维



For filtering water, oil, etc.

Made from coco and packed 30 kg in a carton.

81 31 26	Coco fiber	Kgs
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Loofah Sponges

Esponjas para Filtro, Lufa ヘチマ 丝瓜布



Used for oil straining or filtering.

Each sponge is approximately 40 cm in length. Furnished in pieces only.

81 31 28	Loofah sponge	Pc.
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Copper Wool Filters

(Copper Net Filters)

Malla Filtrante de Cobre コッパーウール 铜滤网



Made of wool-like fine copper and woven into flat tubes. Finely meshed net can strain out and refine lubricating oil or any other liquid. Furnished in a width of 100 mm and coiled approximately 5 kgs per roll.

81 31 30	Filter, copper wool
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Kgs

Reflex Flat Gauge Glasses

Cristal Nivel Caldera Extriado

リフレックスゲージガラス 液位表反射平玻璃板



"Klinger" type boiler gauge glasses.

Available in pressure capacity of 2.0 MPa (20 kgs/cm²) and 3.9 MPa (40 kgf/cm²).

Reflex Type

How to order : CODE

Reflex flat gauge glass, PRESSURE CAPACITY, OVERALL SIZE mm

CODE	No.	Overall Size mm	CODE	No.	Overall Size mm	Unit Per Pcs.
						Pressure Capacity 20 kgf/cm² Pressure Capacity 40 kgf/cm²
81 32 01	1	34×17×115	81 32 11	1	34×17×115	
	2	34×17×140		2	34×17×140	
	3	34×17×165		3	34×17×165	
	4	34×17×190		4	34×17×190	
	5	34×17×220		5	34×17×220	
81 32 06	6	34×17×250	81 32 16	6	34×17×250	
	7	34×17×280		7	34×17×280	
	8	34×17×300		300	34×17×300	
	9	34×17×320		8	34×17×320	
	10	34×17×340		9	34×17×340	

Plain Flat Gauge Glasses

Cristal Nivel Caldera Liso プレーンゲージガラス

水位錶平玻璃



Plain type gauge glasses for boiler use. Available in pressure capacity of 2.0 MPa (20 kgf/cm²) or 7.8 MPa (80 kgf/cm²). Specify pressure when ordering and if mica sheet or non-asbestos packing is required.

Plain Type

How to order: CODE

Plain flat gauge glass, PRESSURE CAPACITY, OVERALL SIZE mm

CODE	No.	Overall Size mm	CODE	No.	Flow Rate	Unit Per Pcs.
						Pressure Capacity 20 kgf/cm² Pressure Capacity 80 kgf/cm²
81 32 31	1	34×17×115	81 32 41	1	34×17×115	
	2	34×17×140		2	34×17×140	
	3	34×17×165		3	34×17×165	
	4	34×17×190		4	34×17×190	
	5	34×17×220		5	34×17×220	
81 32 36	6	34×17×250	81 32 46	6	34×17×250	
	7	34×17×280		7	34×17×280	
	300	34×17×300		300	34×17×300	
	8	34×17×320		8	34×17×320	
	9	34×17×340		9	34×17×340	

Gauge Glass Mica & Packing

Junta Nivel Mica

ゲージガラス用マイカ&パッキング 液位表云母片盼更

For the heat insulation and protection of glass, mica is generally used. The mica is generally furnished in a thickness of 0.2 mm. The packing and mica are furnished separately.



CODE	No.	Overall Size mm	Unit Per Sht.			Unit Per Set.		
			CODE	No.	Overall Size mm	CODE	No.	Overall Size mm
Mica						Non-asbestos & Cushion & Fibre Gasket Set		
81 32 61	1	0.2×34×115	81 32 81	1	34×115			
62	2	0.2×34×140	82	2	34×140			
63	3	0.2×34×165	83	3	34×165			
64	4	0.2×34×190	84	4	34×190			
65	5	0.2×34×220	85	5	34×220			
81 32 66	6	0.2×34×250	81 32 86	6	34×250			
67	7	0.2×34×280	87	7	34×280			
68	300	0.2×34×300	88	300	34×300			
69	8	0.2×34×320	89	8	34×320			
70	9	0.2×34×340	90	9	34×340			

Round Gauge Glasses

Tubos Nivel Pyrex 丸ゲージガラス 玻璃管



For moderate pressure service on boilers, vats and tanks. Furnishable in round gauge glass or acrylic gauge "Plexy" glass supplied on request. Specify whether glass or acrylic is required when ordering. Standard length for both in 1,000 mm but it is furnishable in up to 2,000 mm if required.

How to order: CODE

Gauge glass, round, KIND of MATERIAL, OUTER DIAM × THICKNESS × LENGTH mm

CODE	Outer Diam. mm	Thickness × Lgh mm	Unit Per Lgh.		
			CODE	Outer Diam. mm	Thickness × Lgh mm
Glass					
81 33 01	9	2 × 1,000	81 33 10	9	2 × 1,000
02	12	2 × 1,000	11	12	3 × 1,000
03	14	2 × 1,000	12	16	4 × 1,000
04	16	2 × 1,000	13	19	4 × 1,000
05	17	2.5 × 1,000	14	22	4 × 1,000
81 33 06	19	2.5 × 1,000	81 33 15	25	5 × 1,000
07	20	2.5 × 1,000	16	60	6 × 1,000
08	22	3 × 1,000	17	70	6 × 1,000
09	25	3 × 1,000	18	95	7 × 1,000

Rubber Gauge Glass Washers

Junta Goma para TuboNivel

ゲージガラスワッシャー 液位玻璃橡皮垫圈



Rubber ring washer packing for round gauge glasses. A square pattern is also available if required.

CODE	Size OD inch × Thick mm	CODE	Size OD inch × Thick mm
81 33 31	1/2 × 3	81 33 33	3/4 × 3
32	5/8 × 3	34	1 × 3



Oil Seals

Retenes オイルシール 油封

The Oil Seal stops oil leakage and prevents water, dust and other harmful particles from getting into the workings of bearings. It keeps the bearing clean and lubricated for smooth rotation. Besides stopping leakage effectively, the oil seal is of compact size and is easy to install and remove. Made of highly flexible synthetic rubber to match the motion of the shafts and act as an efficient sealant in simultaneous motion with the springs.

There are so many types of materials and sizes of oil seals, it is impossible to code them all. For this reason, the items described below are only the standard seal designs commonly used for a variety of applications and they are not coded.

Lip materials of the synthetic rubber are:

- Nitrile Rubber
- Polyacrylate Rubber
- Silicone Rubber
- Fluoroelast Rubber

When ordering, please specify the following points:

1. Name of the machine and place of application.
2. Detailed information of the lubricating oil used and the ambient temperature.
3. R.P.M. of shaft.
4. Oil Seal Type /Name / No.

Size: Shaft diameter × Outer diameter × Width

Type	Features
S Type	General non-pressure fluid sealing applications and severe grease sealing conditions. It is a single lip oil seal with a garter spring to provide a consistent radial load against the shaft. General limited working capacity : SMPS 12 m/sec. Temperature 120°C Pressure 0.3 kgf/cm ² G.
T Type	General non-pressure fluid sealing applications with light duty exclusion of foreign materials. This design uses the primary lip configuration, with an auxiliary dust lip to provide effective light duty dust exclusion. General limited working capacity : SMPS 10 m/sec. Temperature 120°C Pressure 0.3 kgf/cm ² G.
V Type	Economical design for grease retention or sealing viscous fluid. It is a single lip seal. General limited working capacity : SMPS 8 m/sec. Temperature 120°C Pressure 0 kgf/cm ² G.
K Type	Economical design for grease retention or sealing viscous fluid with light duty exclusion of foreign materials. This type has an auxiliary lip for light dust exclusion. General limited working capacity : SMPS 5 m/sec. Temperature 120°C Pressure 0 kgf/cm ² G.
D Type	The application which requires separating two fluids from each other should use two garter spring loaded lips. The "D" style incorporates the two lips into one design. General limited working capacity : SMPS 5 m/sec. Temperature 120°C Pressure 0.3 kgf/cm ² G.

* SMPS denotes Surface Meter Per Second.

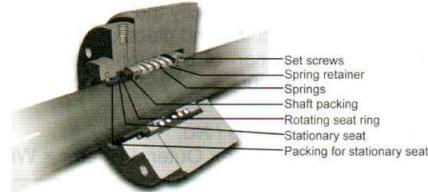
81 35 01	Oil seal, TYPE INNER DIAM or SHAFT DIAM, OUTER DIAM, WIDTH	Pc.
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Mechanical Seals

Cierres Mecánicos メカニカルシール 机械密封

The Mechanical Seal has two flat seal faces at right angles to the axis of the rotating shaft, preventing shaft wear. One is the seal face of the rotating seal ring and the other is the seal face of the stationary seal ring (stationary, seat or floating seat). One seal face (rotating seal ring) is allowed axial motion to permit the seal faces to remain in contact with each other despite endplay of the shaft, wear or runout of the seal faces. The seal ring is flexibly mounted on the shaft and rotates against the stationary seal ring.

The seal ring has a resilient packing, called shaft packing (O-ring or V-ring assembly) that allows the seal ring to slide back and forth along the shaft and at the same time prevent leakage between it and the shaft or sleeve as a secondary seal. The stationary seat is backed against the gaskets (mostly O-rings) to prevent leakage around its back.



Standard for Marine Pump Mechanical Seals

1. Scope of application

This standard is applied to the mechanical seal of the unbalanced single spring type (hereinafter referred to as mechanical seals). The mechanical seals are among those used for marine centrifugal pumps, gear pumps, and screw pumps, driven by electric motors, for pumping fresh water, seawater, fuel oil and lubricating oil, with shaft diameters in the range from 20 to 140 mm. However, special seals are excluded with operating conditions which exceed values stipulated in Section 2 "Criteria for Application" of this standard.

2. Criteria for application

2-1. Limited temperature

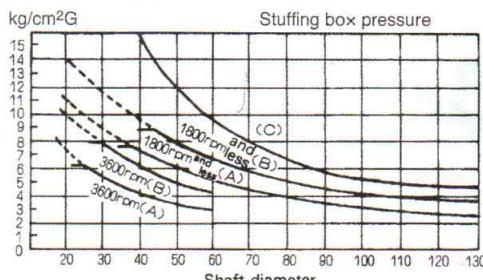
In using the mechanical seals, liquid temperature is restricted within values shown in the table.

Kind of Liquid	Temperature Limit (max.)
Fresh water	90°C
Sea water	40°C
Fuel oil and lubricating oil	100°C

Use cooler with the mechanical seal when the working temperature is higher than the recommended one.

2-2. Limit of pressure and peripheral speed

Pressure for the mechanical seal (stuffing box pressure) and peripheral speed are limited differently depending upon the face material combination. As a rule, the lines in the figure below show the upper limits.



- (A) Ceramic vs Carbon
- (B) Tungsten Carbide vs Carbon
- (C) Silicone Carbide vs Carbon

1. For a pressure and peripheral speed located in the ranges shown by the dotted lines, use balance type mechanical seals.
2. If stuffing box pressure should be negative, please consult us beforehand.

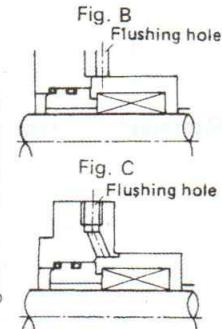
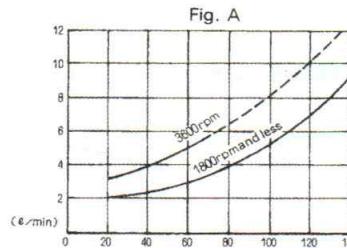
3. Restriction of face materials against rust inhibitor

When the concentration of rust inhibitor exceeds 1,000 ppm, its effect on the seal materials often appears rapidly. Therefore, consult with a dealer before using a mechanical seal with concentrations of rust inhibitor of 1,000 ppm and over.

4. Cooling of the seal face

The normal practice is to require sufficient flushing shown in Fig. A near the seal face for the purpose of cooling, washing, and lubrication. Examples of flushing are shown in Fig. B and Fig. C.

Flow rate for flushing



5. Axial movement, run out and squareness of shaft

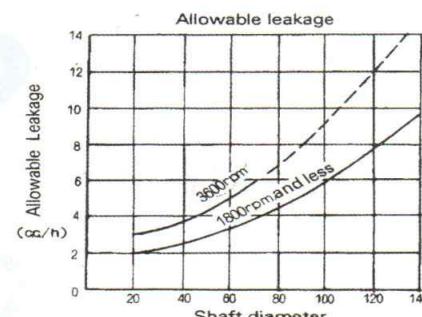
Table

	Allowable Limits	Unit mm
Axial movement	0.5 and under	
Shaft run out Squareness	From 20 to 80 include, in shaft diameter "d" not more than $\frac{\sqrt{d}}{120}$ Over 80 to 140 includ, nott more than 0.075	

* d: Shaft or shaft sleeve diameter at the part where the mechanical seal is fixed.

6. Allowable leakage

In using mechanical seals, the allowable leakage during initial operation is shown in the figure in the next page.



Application of Mechanical Seals

Appli- cation	Service	Machine	(MAX) Operating Condition		
			°C Temper- ature	kgf/cm² G Pressure	m/S Velocity
Pump	Sea water	Main cooling sea water pump Ballast pump Sanitary pump Fire & G.S. pump Sea water service pump	Nitrile -20 - 80 Viton 0 - 150	10	20
	Fresh water	Drinking water pump Drain pump Condensate pump Piston cooling fresh water pump Auxiliary machinery cooling fresh water pump Jacket cooling fresh water pump	Nitrile -20 - 80 Viton 0 - 150	10	20
	Hot water	Boiler feed pump Boiler water circulating pump	220 with cooler	25	20
	Oil	Lubricating oil pump Fuel oil transfer pump Fuel oil booster pump Fuel oil burning pump Cargo oil pump	Nitrile -20 - 80 Viton 0 - 150	10	20
	Chemical	Chemical cargo & transfer pump	90	5	14
Rudder Post	Sea water	Rudder Post	-10 - 60	2	6
Stern Tube		Stern Tube	-10 - 60	2	6

Guide of how to order

When ordering, please specify the following points:

1. Name of Manufacturer
2. Manufacturer's Model No. & Type
3. Application
 - A. Machine
 - B. Service point
4. Size
 - A. Shaft diameter
 - B. Outside diameter
 - C. Overall length
5. Operating Condition
 - A. Temperature
 - B. Working pressure
 - C. Velocity
6. Matting Face Material
7. etc.

81 36 01	Mechanical Seal Model × type × size × mating material	Set
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Non-combustible Divisions

(Compartimientos) Incombustibles 不燃性仕切り 不燃性壁材



Non-combustible divisions are a material made from silicic acid calcium which neither burns or gives off flammable vapors in sufficient quantity for ignition when heated up to 750°C. All exposed surfaces of a ship's bulkheads, linings, and ceilings are required to be covered with this material. The material listed below has a density of 0.65 gm/cm³, which satisfies the requirements for class B divisions according to the 1983 SOLAS regulations.

CODE	Thickness	Width × Length	Unit Per Sht
81 39 11	16 mm		
12	19		
13	22		
14	25	910 × 2,420	

Heat Insulation Pipe Covers

Cubiertas para Conducto contra Calor

保温断熱用パイプカバー 保温管蓋

Rockwool

Rockwool material for insulating pipes from heat and moisture. It is easy to install with slit tube



form, and durable with robust molded structure.

Please choice size corresponding to nominal pipe size to be applied and preferable thickness of insulation cover. Service temperature reaches up to 650°C. Standard length is 1,000 mm.

How to order: CODE

Heat insulation pipe cover, rockwool NOMINAL PIPE SIZE, WALL THICKNESS mm

Unit Per Pcs.

CODE	Nom. Pipe Size		Inner Diam. mm	Thickness mm
	A (mm)	B (Inch)		
81 38 01	15	1/2	22	20
	20	3/4	27	
	25	1	34	
	32	1-1/4	43	
	40	1-1/2	49	
81 38 06	50	2	61	25
	65	2-1/2	76	
	80	3	89	
	100	4	114	
81 38 11	12	5	140	30
	15	1/2	22	
	20	3/4	27	
	25	1	34	
	32	1-1/4	43	
81 38 16	40	1-1/2	49	40
	50	2	61	
	65	2-1/2	76	
	80	3	89	
	100	4	114	
81 38 21	125	5	140	50
	150	6	165	
	20	3/4	22	
	25	1	34	
	32	1-1/4	43	
81 38 25	40	1-1/2	49	50
	50	2	61	
	65	3	89	
	80	4	114	
	100	5	140	
81 38 30	125	6	165	50
	150	2	61	
	165	2-1/2	76	
	180	3	89	
	200	4	114	
81 38 35	125	5	140	50
	150	6	165	
	165	1-1/4	43	
	180	1-1/2	49	
	200	2	61	
81 38 41	125	2-1/2	76	50
	150	3	89	
	165	4	114	
	180	5	140	
	200	6	165	
81 38 46	125	3/4	22	50
	150	1	34	
	165	1-1/4	43	
	180	1-1/2	49	
	200	2	61	
81 38 51	125	2-1/2	76	50
	150	3	89	
	165	4	114	
	180	5	140	
	200	6	165	
81 38 55	125	6	165	50
	150	8	216	
	165	10	267	
	180	12	319	
	200	14	356	
81 38 60	125	10	267	50
	150	12	319	
	165	14	356	
	180	16	406	

Calcium Silicate

These are non-asbestos calcium silicate heat insulators reinforced by fiber. They feature high heat insulation with extremely low thermal conductivity and high heat resistance. Lightweight and easy to install. Service temperature reaches up to 650°C. Standard length is 610 mm split in 2 pieces.



How to order: CODE

Heat insulation pipe cover, calcium silicate NOMINAL PIPE SIZE, WALL THICKNESS mm

CODE	Applicable Pipe Nominal Size		Wall Thickness mm	Length mm	Unit Per Pcs.
81 39 51	15A	1/2	25	610	
52	20A	3/4			
53	25A	1			
81 39 54	32A	1-1/4	30		
55	40A	1-1/2			
56	50A	2			
81 39 57	65A	2-1/2	40		
58	80A	3			
59	90A	3-1/2			
81 39 60	100A	4	50		
61	125A	5			
62	150A	6			

Armaflex Insulation Tubes

A closed cell elastomeric nitrile rubber foam designed to provide a highly efficient method of insulating pipework, ducting and vessels. It is CFC (Chlorofluorocarbon) free and ideal for both hot and cold water services. Heat resistance temperature : -40°C to 105°C. Standard coil length: 2 mtr.



CODE	Size mm	Item No.	CODE	Size mm	Item No.	Unit Per Lgh.
O.D.	Thick		O.D.	Thick		
81 38 09	10	13	IS81001013	81 38 79	54	13 IS81005413
81 38 10	12	13	IS81001213	81 38 80	57	9 IS8090579
81 38 22	15	9	IS8090159	81 38 81	13	13 IS81005713
23		13	IS81001513	81 38 82	60	13 IS81006013
24		19	IS81101519	83	19	19 IS81106019
81 38 36	18	9	IS8090189	81 38 84	64	13 IS81006313
37		13	IS81001813	85	70	13 IS81007013
81 38 38	22	9	IS8090229	81 38 86	9.5	9.5 IS8090769
39		13	IS81002213	87	76	13 IS81007613
40		19	IS81102219	88	19	19 IS81107619
81 38 53	25	13	IS81002513	81 38 89	9.5	9.5 IS8090809
54		19	IS81102519	90	80	13 IS81008013
81 38 63	9	IS8090289	81 38 91	88	19	19 IS81108819
64	28	13 IS81002813	81 38 92	9.5	IS8090899	
65	19	IS81102819	93	89	13	IS81008813
81 38 66	30	13 IS81003013	81 38 94	102	13	IS81010113
81 38 67	9	IS8090359	81 38 95	108	13	IS81010813
68	35	13 IS81003513	96	19	IS81110819	
69	19	IS81103519	81 38 97	9.5	IS8091149	
81 38 70	42	13 IS81004213	98	114	13	IS81011413
75		19 IS81104219	99	19	IS81111519	
81 38 76	45	9 IS8090459	81 39 00	10	IS8091409	
81 38 77	48	13 IS81004813	15	140	13	IS81013913
78		19 IS81104819	16	19	IS81113919	

Name of Mfr.: Alligator

Adhesive Glues for Armaflex Insulation Tube

For gluing Armaflex insulation tubes.

81 39 17	Glue adhesive for Armaflex insulation tube, 1,000 grm, item no. UN 1133 510	Pc.
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Name of Mfr.: Alligator



Armaflex Insulation Sheets

Láminas de aislamiento Armaflex

アルマフレックス耐熱シート 福乐斯绝热片

A closed cell elastomeric nitrile rubber foam designed to provide a highly efficient

method of insulating pipework, ducting and vessels. It is CFC (Chlorofluorocarbon) free and ideal for both hot and cold water services. Heat resistance temperature: -40°C to 105°C. Standard size: 500 x 2,000 mm.

CODE	Thickness mm	Item No.	CODE	Thickness mm	Item No.	Unit Per Sh.
81 39 18	6	IS817006	81 39 22	19	IS817019	
19	10	IS817010	23	25	IS817025	
20	13	IS817013	24	32	IS817032	
21	16	IS817016	25	50	IS817050	

Name of Mfr.: Alligator

Armaflex Insulation Tapes

Cinta aislante Armaflex

隙間カバー用アルマフレックス耐熱テープ

覆盖接缝用福乐斯绝热胶带



To be used between gaps for Armaflex sheet. Heat resistance temperature: -40°C to 105°C.

81 39 26	Tape, Armaflex, Thick:3mm × Width: 50mm, length: 15mtr	Rls.
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Name of Mfr.: Alligator

Central Heating Pipe Sections

Tramos de tubería de calefacción central

アルミ補強断熱シート 铝强化隔热片

The central heating pipe sections have a special reinforced aluminium sandwich foil facing. The self sealing tape allows installation under conditions of high relative humidity and temperatures down to -15°C. Length of a section is 1 metre. Maximum service temperature: 250°C. Limiting temperature of outer facing: 80°C.



CODE	Inner Diam × Thick mm	Length mtr	Product No.	Unit Per Sh.
81 39 27	17 × 25	30	IS84501725	
28	17 × 30	25	IS84501730	
29	21 × 25	30	IS84502125	
30	21 × 40	13	IS84502140	
31	27 × 25	25	IS84502725	
81 39 32	27 × 40	12	IS84502740	
33	33 × 25	20	IS84503325	
34	33 × 40	9	IS84503340	
35	42 × 25	16	IS84504225	
36	42 × 40	9	IS84504240	
81 39 37	48 × 25	15	IS84504825	
38	48 × 40	9	IS84504840	
39	57 × 25	12	IS84505725	
40	57 × 40	6	IS84505740	
41	60 × 25	11	IS84506025	
81 39 42	60 × 40	6	IS84506040	
43	60 × 60	4	IS84506060	
44	64 × 25	9	IS84506425	
45	64 × 40	6	IS84506440	
46	70 × 25	9	IS84507025	
81 39 47	70 × 40	5	IS84507040	
48	76 × 25	9	IS84507625	
49	76 × 40	5	IS84507640	
50	83 × 25	7	IS84508325	
63	83 × 40	4	IS84508340	
81 39 64	89 × 25	6	IS84508925	
65	89 × 40	4	IS84508940	
66	89 × 60	1	IS84508960	
67	102 × 25	5	IS84510225	
68	102 × 40	4	IS84510240	

(to be continued)

CODE	Inner Diam x Thick mm	Length mtr	Pruduct No.	Unit Per Sht.
81 39 69	108 x 25	5	IS84510825	
70	108 x 40	1	IS84510840	
71	114 x 25	4	IS84511425	
72	114 x 40	1	IS84511440	
73	114 x 60	1	IS84511460	
81 39 74	121 x 30	1	IS84512130	
75	121 x 50	1	IS84512150	
76	127 x 25	4	IS84512725	
77	127 x 50	1	IS84512750	
78	133 x 30	1	IS84513330	
81 39 79	133 x 50	1	IS84513350	
80	140 x 30	1	IS84514030	
81	140 x 50	1	IS84514050	
82	159 x 30	1	IS84515930	
83	159 x 50	1	IS84515950	
81 39 84	169 x 30	1	IS84516930	
85	169 x 50	1	IS84516950	
86	194 x 30	1	IS84519430	
87	194 x 50	1	IS84519450	
88	219 x 30	1	IS84521930	
81 39 89	219 x 50	1	IS84521950	

Name of Mfr.: Alligator

Wired Insulation Mats

Alfombrillas de aislamiento cableadas

ワイヤー入り断熱マット 内含鋼丝隔热垫

Suitable for the thermal and acoustic insulation of pipework.

Service temperature: 750°C.



CODE	T x W x L mm	CODE	T x W x L mm	Unit Per Sht.
81 39 90	60 x 500 x 4,000	81 39 92	80 x 500 x 3,000	
91	70 x 500 x 3,500	93	100 x 500 x 2,500	

Lamella Blankets

Covered with Aluminium Foil

Mantas de lámina cubiertas de hoja de aluminio

アルミ皮膜断熱シート 铝膜隔热片



A glass wool blankets made of lamellas with an aluminium facing which acts as vapor barrier.

Temperature: 250°C.

CODE	T x W x L mm	CODE	T x W x L mm	Unit Per Sht.
81 39 94	30 x 1,000 x 8,000	81 39 97	80 x 1,000 x 3,000	
95	50 x 1,000 x 5,000	98	100 x 1,000 x 2,500	
96	60 x 1,000 x 4,000			

Pipe Insulation Tapes

for High Temperature

Cinta Aislante y Resistente a Altas Temperaturas para Tubos

パイプ用絶縁テープ 管路用耐高温绝缘胶带



Quick and easy way to insulate high temperature surfaces of pipes or valves in vessel engine rooms. For use on bent and flanged pipes in areas where maintenance is not a consideration and/or space is limited.

Made from biosoluble vitreous silicate fibre which is reinforced with an outer jacket of heat sealed aluminium foil. Rated for use to 1,000°C max.

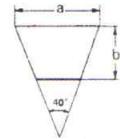
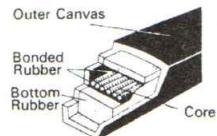
CODE	Width mm (inch)	Thickness mm (inch)	Length mm (inch)	Rolls/Box	Unit Per Rls.
81 38 71	50 (2")	3 (1/8")	7.7 (25')	24	
72	100 (4")	12 (1/2")	3.3 (10')	6	
73	300 (12")	25 (1")	7.7 (25')	2	
74	600 (24")	25 (1")	7.7 (25')	1	

V-Belts

for Power Transmission

Correas Trapeciales V ベルト V型带

(Ref. JIS K 6323 ISO-R608)



The outstanding properties of the single line cord V-belt are that it has great strength and flexibility while stretching only a minimum amount.

Standard V-Belts

The standard sizes are classified into 6 types: M, A, B, C, D, E with the sizes as shown in the table below.

The length M type is measured by an outside circle, while types A~E are measured by the inside circles of the belt.

Standard V-Belt Section

CODE	JIS		RMA (USA)		BS	
	a	b	a	b	a	b
M	10.0	5.5			9.5	6
A	12.5	9.0	12.7	8.0	13.0	8
B	16.5	11.0	16.7	10.3	17.0	10.5
C	22.0	14.0	22.2	13.5	22.0	13.5
D	31.5	19.0	31.7	19.0	32.0	19.0
E	38.0	25.5	38.0	23.0		

Note: Type D and E are seldom requested for supply and not coded here.

Section M

Unit Per Pcs.

Section M 10 x 5.5 mm

CODE	Belt No.	Outer Circle of Belts mm	CODE	Belt No.	Outer Circle of Belts mm
81 40 01	M-15	381	81 40 19	M-33	838
02	-16	406	20	-34	864
03	-17	432	21	-35	889
04	-18	457	22	-36	914
05	-19	483	23	-37	940
81 40 06	M-20	508	81 40 24	M-38	965
07	-21	533	25	-39	991
08	22	559	26	-40	1,016
09	23	584	27	-41	1,041
10	24	610	28	-42	1,067
81 40 11	M-25	635	81 40 29	M-43	1,092
12	-26	660	30	-44	1,118
13	-27	686	31	-45	1,143
14	-28	711	32	-46	1,168
15	-29	737	33	-47	1,194
81 40 16	M-30	762	81 40 34	M-48	1,219
17	31	787	35	-49	1,245
18	32	813	36	-50	1,270

Remark: Belt number, for instance M-15 x (25.4) is the same length of the belt outer circle.

Section A

Unit Per Pcs.

Section A 12.5 x 9 m

CODE	Belt No.	Center Circle of Belts mm	CODE	Belt No.	Center Circle of Belts mm
81 41 01	A-17	432	81 41 41	A-57	1,448
02	-18	457	42	-58	1,473
03	19	483	43	-59	1,499
04	20	508	44	-60	1,524
05	21	533	45	-61	1,550
81 41 06	A-22	559	81 41 46	A-62	1,575
07	-23	584	47	-63	1,600
08	-24	610	48	-64	1,626
09	-25	635	49	-65	1,651
10	-26	660	50	-66	1,676

(to be continued)

Unit Per Pc.

Section A
12.5 × 9 m

CODE	Belt No.	Center Circle of Belts mm	CODE	Belt No.	Center Circle of Belts mm
81 41 11	A-27	686	81 41 51	A-67	1,702
12	-28	711	52	-68	1,737
13	-29	737	53	-69	1,753
14	-30	762	54	-70	1,778
15	-31	787	55	-71	1,803
81 41 16	A-32	813	81 41 56	A-72	1,829
17	-33	838	57	-73	1,854
18	-34	864	58	-74	1,880
19	-35	889	59	-75	1,905
20	-36	914	60	-76	1,930
81 41 21	A-37	940	81 41 61	A-77	1,956
22	-38	965	62	-78	1,981
23	-39	991	63	-79	2,007
24	-40	1,016	64	-80	2,032
25	-41	1,041	65	-81	2,057
81 41 26	A-42	1,067	81 41 66	A-82	2,083
27	-43	1,092	67	-83	2,108
28	-44	1,118	68	-84	2,134
29	-45	1,143	69	-85	2,159
30	-46	1,168	70	-86	2,184
81 41 31	A-47	1,194	81 41 71	A-87	2,210
32	-48	1,219	72	-88	2,235
33	-49	1,245	73	-89	2,261
34	-50	1,270	74	-90	2,286
35	-51	1,295	75	-91	2,311
81 41 36	A-52	1,321	81 41 76	A-92	2,337
37	-53	1,346	77	-93	2,362
38	-54	1,372	78	-94	2,388
39	-55	1,397	79	-95	2,413
40	-56	1,422	80	-96	2,438

Remark: Belt number, for instance A-17 × (25.4) is the same length of the belt center circle.

Section B

Unit Per Pc.

Section B
16.5 × 11 mm

CODE	Belt No.	Center Circle of Belts mm	CODE	Belt No.	Center Circle of Belts mm
81 42 01	B-30	762	81 42 41	B-70	1,778
02	-31	787	42	-71	1,803
03	-32	813	43	-72	1,829
04	-33	838	44	-73	1,854
05	-34	864	45	-74	1,880
81 42 06	B-35	889	81 42 46	B-75	1,905
07	-36	914	47	-76	1,930
08	-37	940	48	-77	1,956
09	-38	965	49	-78	1,981
10	-39	991	50	-79	2,007
81 42 11	B-40	1,016	81 42 51	B-80	2,032
12	-41	1,041	52	-81	2,057
13	-42	1,067	53	-82	2,083
14	-43	1,092	54	-83	2,108
15	-44	1,118	55	-84	2,134
81 42 16	B-45	1,143	81 42 56	B-85	2,159
17	-46	1,168	57	-86	2,184
18	-47	1,194	58	-87	2,210
19	-48	1,219	59	-88	2,235
20	-49	1,245	60	-89	2,261
81 42 21	B-50	1,270	81 42 61	B-90	2,286
22	-51	1,295	62	-91	2,311
23	-52	1,321	63	-92	2,337
24	-53	1,346	64	-93	2,362
25	-54	1,372	65	-94	2,388
81 42 26	B-55	1,397	81 42 66	B-95	2,413
27	-56	1,422	67	-96	2,438
28	-57	1,448	68	-97	2,464
29	-58	1,473	69	-98	2,489
30	-59	1,499	70	-99	2,515
81 42 31	B-60	1,524	81 42 71	B-100	2,540
32	-61	1,550	72	-102	2,591
33	-62	1,575	73	-105	2,667
34	-63	1,600	74	-108	2,743
35	-64	1,626	75	-110	2,794

(to be continued)

81 42 36	B-65	1,651	81 42 76	B-112	2,845
37	-66	1,676	77	-115	2,921
38	-67	1,702	78	-118	2,997
39	-68	1,727	79	-120	3,048
40	-69	1,753	80	-122	3,099

Remark: Belt number, for instance B-30 × (25.4) is the same length of the belt center circle.

Section C

Unit Per Pc.

Section M

22 × 14 mm

CODE	Belt No.	Center Circle of Belts mm	CODE	Belt No.	Center Circle of Belts mm
81 43 01	C-40	1,016	81 43 21	C-88	2,845
02	-42	1,067	22	90	2,921
03	-45	1,143	23	92	2,997
04	-48	1,219	24	95	3,048
05	-50	1,270	25	98	3,099
81 43 06	C-52	1,321	81 43 26	C-100	2,540
07	-54	1,372	27	102	2,591
08	-55	1,397	28	105	2,667
09	-58	1,473	29	108	2,743
10	-60	1,524	30	110	2,794
81 43 11	C-62	1,575	81 43 31	C-112	2,845
12	-65	1,651	32	115	2,921
13	-68	1,727	33	118	2,997
14	-70	1,778	34	120	3,048
15	-72	1,829	35	122	3,099
81 43 16	C-75	1,905	81 43 36	C-125	3,175
17	-78	1,981	37	128	3,251
18	-80	2,032	38	130	3,302
19	-82	2,083			
20	-85	2,159			

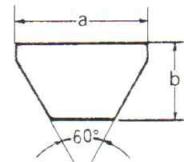
Remark: Belt number, for instance C-40 × (25.4) is the same length of the belt center circle.

Besides above standard types, the following types of V-Belts are also available on request.

Wide Angle V-Belts

mm

No.	a	b	α°
3 M	3.0	2.0	60
5 M	5.0	3.0	60
7 M	7.0	5.0	60
11 M	11.0	7.0	60

**Jointed V-Belts**

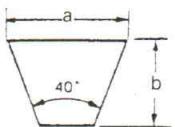
Pitch

No.	Pitch	No.	Pitch
Narrow	3V	10.3	Standard
	5V	17.5	
	8V	28.6	
B	19.0	C	25.5
D	37.0		

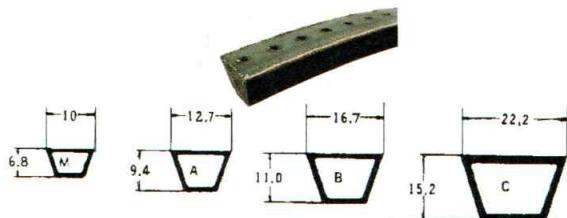
Light-Duty V-Belts

mm

No.	a	b	α°
MB	6.0	4.0	40
J	8.0	6.0	40

**Perforated V-Belts**

Correas Perforadas 穴あき長尺 V ベルト 多孔 V 型带



Designed for drives where ordinary V-belts would not fit and the splice must be arranged on the spot. Supplied in any length, easy to cut and splice. The belt splicing device and fastener will be furnished separately if required.

CODE	Wax Contents	Unit
81 46 01	A	12.7 x 9.4
02	B	16.7 x 11
03	C	22.2 x 15.2
04	M	10 x 6.8

Perforated V-Belt Fasteners

Correas Perforadas-Eslabón
穴あきVベルト用レーシング
打孔式V型带接头



Specially designed for perforated V-belts which operate at low and medium speeds to connect the both edges of V-belts.

How to order: CODE

Perforated V-belt fastener, G-166, TYPE of V-BELT SECTION
Unit Per Pcs.

Type G-166 Fasteners			
CODE	For V Belt Secton	CODE	For V Belt Secton
81 46 14	A	81 46 16	C
15	B	17	M

Steel Belt Lacings

Cordón para Cinturón de Acero ベルトレーシング 皮带钢接头



These belt lacings are made from special steel which is tough and durable yet very easy to fit. Only a hammer is required to install the lacing.

CODE	No. & Symbol	Length	Pcs. Per Box	Belt Width	Belt Thickness
81 46 51	#15	200	16	25	3 ~ 4.5
52	#20	200	15	50	4
53	F25	200	12	75	5 ~ 6.5
54	G25	300	16	75	5 ~ 6.5
55	K27	300	8	100	6 ~ 7
81 46 56	L27	300	16	100	6 ~ 7
57	N35	300	8	125	6 ~ 8.5
58	U45	300	8	200	8 ~ 10
59	W55	300	8	250	9 ~ 12
60	X65	300	8	250	10 ~ 14
81 46 61	#75	300	8	300	13 ~ 20

Belt Wax

Spray Tensa-Correa ベルトワックス 皮带蜡

It prevents slipping of V-belt and flat-belts.
Available as solid cake or liquid spray type.

CODE	Wax Contents	Unit
81 46 81	Solid app. 420 gm	Pc.
82	Spray Liquid of 230 cc	Tin

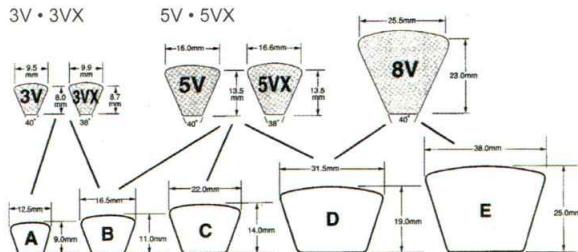
Wedge V-Belts

Correa de Cuña ウエッジVベルト V型带

Compact designed for wedge sheave, and suitable for higher speed and horsepower than standard sheave permit. It is excellent for heat resistance and anti-static property. Available in normal wrapped type or more flexible energy saving "notched type", so please specify the type of wedge V-belt when ordering.



Normal Wrapped Type Notched Type



How to order: CODE

Wedge V-Belt, Normal or Notch shape, Size and Model Number

Unit Per Pcs.

Section 3V 9.5 x 8 mm					
CODE	Belt No.	Effective Circle Length mm	CODE	Belt No.	Effective Circle Length mm
81 48 01	3V 250	635	81 48 17	3V 630	1,600
02	3V 265	673	18	3V 670	1,702
03	3V 280	711	19	3V 710	1,803
04	3V 300	762	20	3V 750	1,905
05	3V 315	800	21	3V 800	2,032
81 48 06	3V 335	851	81 48 22	3V 850	2,159
07	3V 355	902	23	3V 900	2,286
08	3V 375	953	24	3V 950	2,413
09	3V 400	1,016	25	3V 1000	2,540
10	3V 425	1,080	26	3V 1060	2,692
81 48 11	3V 450	1,143	81 48 27	3V 1120	2,845
12	3V 475	1,207	28	3V 1180	2,997
13	3V 500	1,270	29	3V 1250	3,175
14	3V 530	1,346	30	3V 1320	3,353
15	3V 560	1,422	31	3V 1400	3,556
81 48 16	3V 600	1,524			

Unit Per Pcs.

Section 3VX 9.5 x 8.7 mm					
CODE	Belt No.	Effective Circle Length mm	CODE	Belt No.	Effective Circle Length mm
81 48 41	3VX 250	635	81 48 57	3VX 630	1,600
42	3VX 265	673	58	3VX 670	1,702
43	3VX 280	711	59	3VX 710	1,803
44	3VX 300	762	60	3VX 750	1,905
45	3VX 315	800	61	3VX 800	2,032
81 48 46	3VX 335	851	81 48 62	3VX 850	2,159
47	3VX 355	902	63	3VX 900	2,286
48	3VX 375	953	64	3VX 950	2,413
49	3VX 400	1,016	65	3VX 1000	2,540
50	3VX 425	1,080	66	3VX 1060	2,692
81 48 51	3VX 450	1,143	81 48 67	3VX 1120	2,845
52	3VX 475	1,207	68	3VX 1180	2,997
53	3VX 500	1,270	69	3VX 1250	3,175
54	3VX 530	1,346	70	3VX 1320	3,353
55	3VX 560	1,422	71	3VX 1400	3,556
81 48 56	3VX 600	1,524			

Section 5V 16 × 13.5 mm						Unit Per Pc.	
CODE	Belt No.	Effective Circle Length mm	CODE	Belt No.	Effective Circle Length mm		
81 49 01	5V 500	1,270	81 49 19	5V 1400	3,556		
02	5V 530	1,346	20	5V 1500	3,810		
03	5V 560	1,422	21	5V 1600	4,064		
04	5V 600	1,524	22	5V 1700	4,318		
05	5V 630	1,600	23	5V 1800	4,572		
81 49 06	5V 670	1,702	81 49 24	5V 1900	4,826		
07	5V 710	1,803	25	5V 2000	5,080		
08	5V 750	1,905	26	5V 2120	5,385		
09	5V 800	2,032	27	5V 2240	5,690		
10	5V 850	2,159	28	5V 2360	5,694		
81 49 11	5V 900	2,286	81 49 29	5V 2500	6,350		
12	5V 950	2,413	30	5V 2650	6,731		
13	5V 1000	2,540	31	5V 2800	7,112		
14	5V 1060	2,692	32	5V 3000	7,620		
15	5V 1120	2,845	33	5V 3150	8,001		
81 49 16	5V 1180	2,997	81 49 34	5V 3350	8,509		
17	5V 1250	3,175	35	5V 3550	9,017		
18	5V 1320	3,353					

Section 5VX 16.6 × 13.5 mm						Unit Per Pc.	
CODE	Belt No.	Effective Circle Length mm	CODE	Belt No.	Effective Circle Length mm		
81 49 41	5VX 500	1,270	81 49 59	5VX 1400	3,556		
42	5VX 530	1,346	60	5VX 1500	3,810		
43	5VX 560	1,422	61	5VX 1600	4,064		
44	5VX 600	1,524	62	5VX 1700	4,318		
45	5VX 630	1,600	63	5VX 1800	4,572		
81 49 46	5VX 670	1,702	81 49 64	5VX 1900	4,826		
47	5VX 710	1,803	65	5VX 2000	5,080		
48	5VX 750	1,905	66	5VX 2120	5,385		
49	5VX 800	2,032	67	5VX 2240	5,690		
50	5VX 850	2,159	68	5VX 2360	5,694		
81 49 51	5VX 900	2,286	81 49 69	5VX 2500	6,350		
52	5VX 950	2,413	70	5VX 2650	6,731		
53	5VX 1000	2,540	71	5VX 2800	7,112		
54	5VX 1060	2,692	72	5VX 3000	7,620		
55	5VX 1120	2,845	73	5VX 3150	8,001		
81 49 56	5VX 1180	2,997	81 49 74	5VX 3350	8,509		
57	5VX 1250	3,175	75	5VX 3550	9,017		
58	5VX 1320	3,353					

Porthole Glasses

Cristales para Portillo 丸窓用強化ガラス 弦窗玻璃板

Made of strengthened glass, with polished edges. When ordering, please specify the nominal size of the porthole and whether clear or frosted glass is required.



How to order: CODE

Porthole glass, CLEAR or FROST, DIAM × THICKNESS mm

Unit Per Pc.

CODE	Port Hole Nom. Dia	Glass Diam.	Glass Thick	CODE	Port Hole Nom. Dia	Glass Diam.	Glass Thick
Clear							
81 47 01			8	81 47 31			8
02	200	212	10	32	200	212	10
03			12	33			12
81 47 04			8	81 47 34			8
05	250	262	10	35	250	262	10
06			12	36			12
07			15	37			15
81 47 08			8	81 47 38			8
09	300	312	10	39	300	312	10
10			12	40			12
11			15	41			15

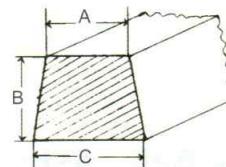
(to be continued)

81 47 12	350	362	10	81 47 42	350	362	10
13			12	43			12
14			15	44			15
81 47 15	400	412	10	81 47 45	400	412	10
16			12	46			12
17			15	47			15

Porthole Linings

Junta para Cristales de Portillo 丸窓ゴムパッキン 弦窗橡皮垫料

A rubber trapezoid section used for packing porthole glasses. Any length available upon request. When ordering, please specify the size of the rubber section.



Unit Per Mtr.

CODE	Size mm.		
	A	B	C
81 47 51	8	8	11
52	9	9	12

Watertight E.P.D.M. Rubber Door Packings

Guarnición estanca de caucho EPDM para puertas

防水 E.P.D.M. ゴムドアパッキング

E. P. D. M. 门用防水橡胶条

Made of E.P.D.M. (Ethylene Propylene Diene Monomer) rubber and used as watertight door packing. Seawater resistance, and maximum temperature -40°C to + 70°C. Colour is black and Standard length : 10mtr.

Tolerances : 18 – 30mm ± 1.0mm.

30 – 50mm ± 1.5mm

The list shows standard size, and please ask your local supplier availability for the sizes other than these standard sizes.



Unit Per Lgh.

CODE	Size mm	CODE	Size mm	CODE	Size mm
81 50 16	10 × 6	81 50 02	30 × 15	81 50 13	40 × 40
17	10 × 8	03	30 × 20	38	45 × 10
18	10 × 10	32	30 × 25	39	45 × 15
19	12 × 8	33	30 × 30	14	45 × 20
20	12 × 10	34	35 × 10	15	45 × 25
81 50 21	12 × 12	81 50 35	35 × 12	81 50 40	45 × 30
22	15 × 10	04	35 × 15	41	45 × 40
23	15 × 15	05	35 × 20	42	45 × 45
24	20 × 6	06	35 × 25	43	50 × 5
25	20 × 10	07	35 × 30	44	50 × 10
81 50 26	20 × 15	81 50 36	35 × 35	81 50 45	50 × 15
27	20 × 20	37	40 × 10	46	50 × 20
28	25 × 10	08	40 × 15	47	50 × 25
01	25 × 15	09	40 × 20	48	50 × 30
29	25 × 20	10	40 × 25	49	50 × 35
81 50 30	25 × 25	81 50 11	40 × 30	81 50 50	50 × 40
31	30 × 10	12	40 × 35		