

Spett.le

Desmet Ballestra S.P.A.

Via Piero Portaluppi, 17 20138 MILANO C.A. EGR. SIG. MASTROMATTEO

La Spezia

11/10/2012

# CERTIFICATO DI CONFORMITA'(ref. UNI EN 10204 ref. 2.1 ) N°022 CERTIFICATE OF COMPLIANCE

Vs. Ordine / Your Reference Ns. DDT / Our Delivery Note	N° N°	121462 745/Ti	Comm.	C2F11A	del / dated del / dated	13/06/2012 08/10/2012
Posizione /Position	N° N°	01 - 06 <b>Item:</b> 07 - 13	B5C B5B		Q.tà / Q.ty	VARIE VARIE VARIE
	N° N°	14 - 21 22 - 24	B5F G5N			VARIE

Ns. commessa:

OV- 259/FD

Our job

Descrizione/	Description:			
Pos.	01 - 06	Item:	B5C	FLAT GASKETS FOR FLANGES AS PER ASME 150 LB RF MATERIAL "C" SB-ATI-PV009/5
Pos.	07 - 13	Item:	B5B	FLAT GASKETS FOR FLANGES AS PER ASME 150 LB RF MATERIAL "B" SB-ATI-PV009/5
Pos.	14 - 21	Item:	B5F	FLAT GASKETS FOR FLANGES AS PER ASME 150 LB RF MATERIAL "F" SB-ATI-PV009/5
Pos.	22 - 24	Item:	G5N	SPIRAL WOUND GASKETS WITH EXTERNAL CENTERING RING AND INT. RING FOR FLANGES AS PER ASME 150 LB MATERIAL "N" TAB. SB-ATI-PV009/5
Pos.		Item:		

è stato prodotto in conformità all'ordine di acquisto e secondo le norme o disegni da questo citate. is manufactured in conformity with the P.O. and in accordance with specifications and relevant drawings.



# TECHNICAL SHEET N.03.45/e.1209

Euroguarco SpA, Via Terralba, 19021 Pietralba di Arcola, La Spezia, Italy
Tel. ++39 0187 562953 Fax ++39 0187 562955 www.euroguarco.com

# **FASIT 400**

High quality non-asbestos jointing sheet, based on kevlar® aramid fibres, lamellar graphite, mineral fillers and NBR elastomeric binder.

The embedded graphite composition provides excellent resistance to temperature and mechanical stress.

# ASBESTOSFREE

# **Applications**

Suitable for saturated steam, fuels, lubricants, alkalis and weak acids. Especially recommended where dynamic loads are present, due to pressure and temperature cycles, or to external bending load on the joint.

**Technical Data** (typical values relate to 2 mm thickness)

Density	DIN 3754	1.75	g/cm <sup>3</sup>
Service limits*:  Max. continuous operating temperature with exhaust Max. continuous operating temperature with oils and Max. continuous operating temperature with steam Max. operating pressure	370 330 250 100	°C °C °C bar	
Compressibility	ASTM F36	7	%
Recovery	ASTM F36	50	%
Stress retention: - 16 hrs, 300°C, 50 N/mm <sup>2</sup> - 16 hrs, 175°C, 50 N/mm <sup>2</sup>	DIN 52913	25 30	N/mm <sup>2</sup> N/mm <sup>2</sup>
Tensile Strength (across grain)	DIN 52910	9	N/mm <sup>2</sup>
Nitrogen permeability	DIN 3535/4	0.8	ml/min
Ignition loss	DIN 52911	50	%
Immersion test in ASTM Oil 3 for 5 hrs. at 150°C - weight increase - thickness increase	ASTM F146	5 10	% %
Immersion test in ASTM Fuel B for 5 hrs at 20°C - weight increase - thickness increase	ASTM F146	10 5	% %

<sup>\*</sup> Max. temperature and pressure do not hold simultaneously and are reported for proper seating conditions and gasket design

### References

ENI: approval for use with steam, oils, fuels, solvents, etc. Tecnimont: approval for use with steam, oils, fuels, solvents, etc. DIN 28091 FA-AC N-0, BS 7531 grade Y

# Standard supply data

Colour:

black

Sheet size:

1500 x 1500 mm

tolerance: +/- 50 mm

Thickness:

(upon request: 1500x3000, 1500x4500 mm) from 0.3 to 5.0 mm

tolerance: +/- 10%

Surface finish:

4xA anti-stick coating on both sides. Graphite coating upon request

Note: FASIT® jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from them.



# TECHNICAL SHEET N.03.35/e.0204

Euroguarco SpA, Via Terralba, 19021 Pietralba di Arcola, La Spezia, Italy
Tel. ++39 0187 562953 Fax ++39 0187 562955 www.euroguarco.com

# **FASIT® OMNIA**

Non-asbestos jointing sheet, composed of kevlar® aramid fibres and high temperature resistant mineral fillers, bonded with high ACN-content NBR rubber. The formulation gives the material excellent chemical stability and resistance to creep.



# **Applications**

Universal use, gases, hydrocarbons, solvents, low pressure steam, mild acids and alkalis. Suitable for food industry, public utilities, water treatment plants, chemical plants, oil industry, etc.

**Technical Data** (values relate to 2 mm thickness)

Density	DIN 3754		~ 1.8	g/cm <sup>3</sup>
Service limits*:  Max. short term temperature  Max. continuous operating temperature with no Max. continuous operating temperature with stemperature with st			370 320 200 100	ზ ზ ხar
Compressibility	ASTM F36		8	%
Recovery	ASTM F36	min.	55	%
Stress retention: - 16 hrs, 300℃, 50 N/mm <sup>2</sup> - 16 hrs, 175℃, N/mm <sup>2</sup>	DIN 52913	min. min.	22 30	N/mm² N/mm²
Tensile Strength (across grain)	DIN 52910	min.	12	N/mm <sup>2</sup>
Gas permeability (N₂, 40 bar, 30 N/mm², 200℃)	DIN 3535/4-28090	max.	0.05	mg/m sec
Ignition loss	DIN 52911	max.	30	%
Immersion test in ASTM Oil 3 for 5 hrs. at 150°C - weight increase - thickness increase	ASTM F146	max. max.	10 5	% %
Immersion test in ASTM Fuel B for 5 hrs at 20°C - weight increase - thickness increase - tensile strength	ASTM F146	max. max. min.	10 5 7	% % N/mm²
Gasket constants according to PVRC – ROTT test Gb a Gs		thick.:	1.5 mm 6.4 0.25 0.0011	N/mm² N/mm²

<sup>\*</sup> Service limits are recommended for proper seating conditions and gasket design

# Supply data:

Surface colour: blue

Sheet size - Standard: 1500 x 1500 mm (upon request: 1500x3000, 1500x4500 mm) tolerance: +/- 50 mm

Thickness:

from 0.3 to 5.0 mm tolerance: +/- 10%

Surface finish: 4xA anti-stick coating or graphite powder Available upon request

# References:

DIN-DVGW (gas industry), SVGW (gas industry), BAM (oxygen), HTB (high temp.), Germanische Lloyd (ship's systems), DuPont, ENI, Tecnimont, Italian Ministry of Defence (ship's systems), Nuovo Pignone, Fincantieri, Italian Railways, ELF, SNCF, etc. BS 7531 grade Y, DIN 28091 FA - A1 - 0

Note: FASIT® jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests results, are meant as non-binding guideline for gasket selection.



**EUROGUARCO S.p.A. –** V. Terralba, Lo. Pietralba di Arcola, 19021 La Spezia, Italy Tel.: (++39) 0187 562611 - Fax: (++39) 0187 562955 - <a href="http://www.euroguarco.com">http://www.euroguarco.com</a>

Nº24.W/e.1004

# **GUAFLON virgin PTFE gasket sheet**

100% pure PTFE skived sheets for gasket die-cutting

# **Applications**

Suitable for use with aggressive media in the chemical, petrol-chemical, pharmaceutical, paper and food industry. Suitable for all chemicals, with the exception of molten alkali metals, fluorine gas, hydrogen fluoride and materials that may generate these.

# **Technical Data** (values relate to 2 mm thickness)

Density	ASTM D 792	2.14 ÷2.18	g/cm <sup>3</sup>
Service limits (recommended)*: Continuous service tempe	erature range	-200 ÷ +180	°C
Max. service pressure	· ·	40	bar
Chemical application ra	nge	0 ÷ 14	pН
Compressibility	ASTM F 36	7 ÷ 15	%
Recovery	ASTM F 36	30	%
Creep relaxation (20 N/mm <sup>2</sup> , 100°C, 22 hrs)	ASTM F 38	60	%
Stress retention (30 N/mm <sup>2</sup> , 150°C, 16 hrs)	DIN 28091-52913	> 12.5	N/mm²
Tensile Strength	ASTM D 1457	> 12	N/mm <sup>2</sup>
Gas permeability (N2, 40 bar, 30 N/mm²)	DIN 3535/4	< 0.2	ml/min
Compression Strength $\sigma_{VO}$ Room Temp.:	DIN 28090	150	N/mm <sup>2</sup>
" $\sigma_{BO}$ at 100°C:	n	60	N/mm <sup>2</sup>
" $\sigma_{BO}$ at 180°C:	11	20	N/mm <sup>2</sup>
Gasket factors: Min. gasket assembly stress $\sigma_{VU/0.1}$	DIN 28090	20	N/mm <sup>2</sup>
Maintenance factor $m_{0.1}$		2	

<sup>\*</sup> Service limits are indicated for proper assembly conditions and gasket design. Max. temperature and max. pressure must not occur simultaneously.

# Supply data:

Colour:

white

Standard sheet size:

1500 x 1500 mm

Standard thickness: from 1.0 to 3.0 mm

tolerances according to DIN 28091

GUAFLON sheets are available also with insertion of tanged perforated stainless steel sheet

GUAFLON® jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests typical results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from these data. When needed, we shall be pleased to assist you with specific technical assistance.

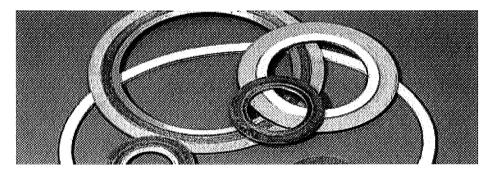


### TECHNICAL DATASHEET N.34/e.0411

**EUROGUARCO S.p.A. –** Headquarters: Via Terralba, Pietralba di Arcola 19021, La Spezia, Italy Tel.: (++39) 0187 56261 - Fax: (++39) 0187 562955 - <a href="http://www.euroguarco.com">http://www.euroguarco.com</a>

# **Spiral-Wound Gaskets**

SPW gaskets are suitable across a wide range of fluctuating service pressure – up to 250 bar – and temperature – from -200°C to 1000°C – depending on their construction. The sealing element consists of a V-shaped metal strip spirally wound in combination with a soft sealing material filler. The metal strip provides outstanding resilience, while the flexible sealing filler guarantees excellent sealing.



**Style S** - Basic construction type. Inner and outer diameters are reinforced with several plies of metal without filler to give greater stability and better compression and sealing characteristics. Suitable for tongue and groove or male and female or grooved to flat face flange assemblies.

**Style ES** - Utilizes an external ring which accurately centers gasket on flange face, provides additional radial strength to prevent gasket blow-out and acts as a compression stop. A general purpose gasket suitable for use with flat face and raised face flanges up class 600.

**Style SI** - Solid inner metal ring acts as a compression stop and fills the annular space between flange bore and the inside diameter of the gasket. Designed to prevent accumulation of solids, reduce turbulent flow of process fluids and minimize erosion at flange faces. Suitable for male and female flanges.

**Style ESI** – both outer and inner ring are present. Suitable for flat face and raised face flanges and specified for high pressure/temperature service - up to class 2500 or where corrosive or toxic media are present.

### **AVAILABLE METAL MATERIALS**

Stainless Steel 304, 304L, 309, 310, , 316L, 316Ti, 317L, 321, 347, 430 CARBON STEEL MONEL®, TITANIUM, NICKEL 200 INCONEL® 600, INCONEL® 625, INCONEL® X-750 HASTELLOY® B2, HASTELLOY® C276 INCOLOY® 800, INCOLOY® 825 DUPLEX, ZIRCONIUM, TANTALUM, COPPER

# **AVAILABLE FILLER MATERIALS**

GRAFLEX® flexible graphite PTFE, Non-sintered PTFE Beater addition, Ceramic

Spiral-wound gaskets can be manufactured in accordance with all relevant gasket standards (ASME, DIN, BS, etc.), as well as custom-tailored for use on non-standard flanges.

Gaskets of special design can be engineered and fabricated to cover a wide range of applications in installations for which there are no industry-wide standards. Special gaskets have been designed for valves, pumps, compressors, turbines, boilers, heat exchangers, etc. Consult with Euroguarco engineers as early in the design stage as possible.

Euroguarco gaskets are manufactured under Quality Assurance System certified according to ISO 9001

Data here reported correspond to laboratory and field tests typical results, and are meant as non-binding guideline for gasket selection. Therefore, no guarantee claim can be inferred from these data. When needed, we shall be pleased to assist you with specific technical assistance.



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Desmet Ballestra S.P.A.

Via Piero Portaluppi, 17 20138 MILANO C.A. EGR. SIG. MASTROMATTEO

La Spezia

23/10/2012

# CERTIFICATO DI CONFORMITA'(ref. UNI EN 10204 ref. 2.1 ) N°024 CERTIFICATE OF COMPLIANCE

Vs. Ordine / Your Reference Ns. DDT / Our Delivery Note		121866 783/TI	Comm.	C2F11A	del / dated del / dated	01/08/2012 22/10/2012
Posizione /Position	N° N°	01 - 03 <b>Item:</b> 04 - 06	B5B B5F		Q.tà / Q.ty	VARIE VARIE

Ns. commessa:

**OV-310/FD** 

Our job

Descrizione/	Description :			
Pos.	01 - 03	Item:	B5B	FLAT GASKETS FOR FLANGES AS PER ASME 150 LB RF MATERIAL "B" SB-ATI-PV009/5
Pos.	04 - 06	Item:	B5F	FLAT GASKETS FOR FLANGES AS PER ASME 150 LB RF MATERIAL "F" SB-ATI-PV009/5
Pos.		Item:		
Pos.		Item:		
Pos.	,	Item:		
Pos.		Item:		

è stato prodotto in conformità all'ordine di acquisto e secondo le norme o disegni da questo citate. is manufactured in conformity with the P.O. and in accordance with specifications and relevant drawings.



# TECHNICAL SHEET N.03.45/e.1209

Euroguarco SpA, Via Terralba, 19021 Pietralba di Arcola, La Spezia, Italy
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# FASIT 400

High quality non-asbestos jointing sheet, based on kevlar® aramid fibres, lamellar graphite, mineral fillers and NBR elastomeric binder.

The embedded graphite composition provides excellent resistance to temperature and mechanical stress.



### **Applications**

Suitable for saturated steam, fuels, lubricants, alkalis and weak acids. Especially recommended where dynamic loads are present, due to pressure and temperature cycles, or to external bending load on the joint.

**Technical Data** (typical values relate to 2 mm thickness)

Density	DIN 3754	1.75	g/cm <sup>3</sup>
Service limits*:			
Max. continuous operating temperature with exhaust	gases	370	°C
Max. continuous operating temperature with oils and	fuels	330	°C
Max. continuous operating temperature with steam		250	°C
Max. operating pressure	***************************************	100	bar
Compressibility	ASTM F36	7	%
Recovery	ASTM F36	50	%
Stress retention:	DIN 52913		
- 16 hrs, 300°C, 50 N/mm <sup>2</sup>		25	N/mm <sup>2</sup>
- 16 hrs, 175°C, 50 N/mm <sup>2</sup>		30	N/mm <sup>2</sup>
Tensile Strength (across grain)	DIN 52910	9	N/mm <sup>2</sup>
Nitrogen permeability	DIN 3535/4	0.8	ml/min
Ignition loss	DIN 52911	50	%
Immersion test in ASTM Oil 3 for 5 hrs, at 150°C	ASTM F146		
- weight increase		5	%
- thickness increase	***************************************	10	%
Immersion test in ASTM Fuel B for 5 hrs at 20°C	ASTM F146		
- weight increase		10	%
- thickness increase		5	%

<sup>\*</sup> Max. temperature and pressure do not hold simultaneously and are reported for proper seating conditions and gasket design

### References

ENI: approval for use with steam, oils, fuels, solvents, etc. Tecnimont: approval for use with steam, oils, fuels, solvents, etc. DIN 28091 FA-AC N-0, BS 7531 grade Y

# Standard supply data

Colour:

black

Sheet size:

1500 x 1500 mm

tolerance: +/- 50 mm

Thickness:

from 0.3 to 5.0 mm

tolerance: +/- 10%

Surface finish:

4xA anti-stick coating on both sides. Graphite coating upon request

Note: FASIT® jointing manufacture is quality assured in accordance with ISO 9001

(upon request: 1500x3000, 1500x4500 mm)

Data here reported, corresponding to laboratory and field tests results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from them.



**EUROGUARCO S.p.A.** – V. Terralba, Lo. Pietralba di Arcola, 19021 La Spezia, Italy Tel.: (++39) 0187 562611 - Fax: (++39) 0187 562955 - http://www.euroguarco.com

Nº24.W/e.1004

# **GUAFLON virgin PTFE gasket sheet**

100% pure PTFE skived sheets for gasket die-cutting

# **Applications**

Suitable for use with aggressive media in the chemical, petrol-chemical, pharmaceutical, paper and food industry. Suitable for all chemicals, with the exception of molten alkali metals, fluorine gas, hydrogen fluoride and materials that may generate these.

# **Technical Data** (values relate to 2 mm thickness)

Density	ASTM D 792	2.14 ÷2.18	g/cm³
Service limits (recommended)*: Continuous service temper	rature range	-200 ÷ +180	°C
Max. service pressure	_	40	bar
Chemical application rar	nge	0 ÷ 14	pН
Compressibility	ASTM F 36	7 ÷ 15	%
Recovery	ASTM F 36	30	%
Creep relaxation (20 N/mm <sup>2</sup> , 100°C, 22 hrs)	ASTM F 38	60	%
Stress retention (30 N/mm <sup>2</sup> , 150°C, 16 hrs)	DIN 28091-52913	> 12.5	N/mm <sup>2</sup>
Tensile Strength	ASTM D 1457	> 12	N/mm <sup>2</sup>
Gas permeability (N2, 40 bar, 30 N/mm²)	DIN 3535/4	< 0.2	ml/min
Compression Strength $\sigma_{VO}$ Room Temp.:	DIN 28090	150	N/mm <sup>2</sup>
" $\sigma_{BO}$ at 100°C:	11	60	N/mm <sup>2</sup>
" $\sigma_{BO}$ at 180°C:	11	20	N/mm <sup>2</sup>
Gasket factors: Min. gasket assembly stress $\sigma_{VU/0.1}$	DIN 28090	20	N/mm <sup>2</sup>
Maintenance factor $m_{0.1}$		2	

<sup>\*</sup> Service limits are indicated for proper assembly conditions and gasket design. Max. temperature and max. pressure must not occur simultaneously.

# Supply data:

Colour:

white

Standard sheet size:

1500 x 1500 mm

Standard thickness:

from 1.0 to 3.0 mm

tolerances according to DIN 28091

GUAFLON sheets are available also with insertion of tanged perforated stainless steel sheet

GUAFLON® jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests typical results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from these data. When needed, we shall be pleased to assist you with specific technical assistance.



Spett.le

**Desmet Ballestra S.P.A.** 

Via Piero Portaluppi, 17 20138 MILANO C.A. EGR. SIG. MASTROMATTEO

La Spezia

11/10/2012

# CERTIFICATO DI CONFORMITA'(ref. UNI EN 10204 ref. 2.1 ) N°021 CERTIFICATE OF COMPLIANCE

Vs. Ordine / Your Reference Ns. DDT / Our Delivery Note		121463 746/TI	Comm.	C2F11A	del / dated del / dated	13/06/2012 08/10/2012
Posizione /Position	N° N° N° N°	01 - 04 <b>Item:</b> 05 06 - 10 11 12 - 13	B4C A9D A9C B18C B2C		Q.tà / Q.ty	VARIE VARIE VARIE VARIE VARIE

Ns. commessa:

OV- 257/FD

Our job

Descrizione/	Description :			
Pos.	01 - 04	Item:	B4C	FLAT GASKET FOR FLANGES AS PER ASME 150+600 LB LARGE MALE & FEMALE MATERIAL "C" SB-ATI-PV009/5
Pos.	05	Item:	A9D	FULL FACE GASKETS WITH HOLES FOR BOLTS FOR FLANGES AS PER DESMET BALLESTRA STD SB-ATI-PF001./.PF012 MATERIAL "D" SB-ATI-PV009/5
Pos.	06 - 10	Item:	A9C	FULL FACE GASKETS WITH HOLES FOR BOLTS FOR FLANGES AS PER DESMET BALLESTRA STD SB-ATI-PF001./.PF012 MATERIAL "C" SB-ATI-PV009/5
Pos.	11	Item:	B18C	FLAT GASKETS FOR FLANGES AS PER DESMET-BALLESTRA STANDARD SB-ATI- PF002 /-PF004 /-PF027 MATERIAL "C" SB-ATI-PV009/5
Pos.	12 - 13	Item:	B2C	FLAT GASKETS FOR FLANGES AS PER EN 1092-1 PN 2.5 PN 6 MATERIAL "C" SB-ATI- PV009/5
Pos.		Item:		

è stato prodotto in conformità all'ordine di acquisto e secondo le norme o disegni da questo citate. is manufactured in conformity with the P.O. and in accordance with specifications and relevant drawings.



### TECHNICAL SHEET N.70.06/e.0204

Euroguarco SpA, Via Terralba, 19021 Pietralba di Arcola, La Spezia, Italy
Tel. ++39 0187 562953 Fax ++39 0187 562955 www.euroguarco.com

# CERAFELT

Cerablanket is a light weight, flexible batting made from bulk ceramic fiber interlocked to form a strong resilient insulation. It is manufactured by a unique wet felting process which removes unfiberised shot from the fiber to produce the cleanest, most efficient ceramic fiber felt available.

The higher densities of this product mean better thermal insulation than the standard range of felts can offer. Strengths are also higher both before and after heat treatment (loss of organic binder).

# **Applications**

- Lining of boiler combustion chambers
- Expansion joints
- High temperature kiln and furnace insulation
- lagging of small capacity foundry ladles
- Heat shields (aluminium faced)
- Acoustic and thermal insulation for (exhaust) pipes
- Various die-cut seals
- Back-up insulation (complex geometrical surfaces)
- Fire-fighting insulation: bulkhead, fire barrier door, lagging

### **Technical Data**

Composition SiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> CaO and MgO	51.8 % 48.0 % < 0.5 %
Max. operating temperature (ENV 1094-3)	1260°C
Color	white
Density Kg/m³	270
Thermal conductivity at 200°C W/m°K	0,07
at 400°C "	0,10
at 600°C "	0,19
at 800°C "	0,28
at 1000°C "	0,35
Tensile strength: longitudinal KPa	200
Ignition loss after 24 hours at 1100°C	< 1.1 %
Oil reaction ASTM D.471 - oil n. 3	none
Smoke Optical density ASTM E 662	ZERO

# Standard supply conditions

In sheets of standard size 1250 x 1000 mm, in thickness: 3 - 6 - 9- 12 - 18 - 25 - 30 mm

Also available in rolls of 12 and 25 m.

Available as standard with aluminium foil faced (width 500 mm)

Carton standard dimensions: 1280 x 1040 x 100 mm

Data here reported, corresponding to laboratory and field tests results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from them. When needed, we shall be pleased to assist you with specific technical assistance.



# TECHNICAL SHEET N.03.35/e.0204

Euroguarco SpA, Via Terralba, 19021 Pietralba di Arcola, La Spezia, Italy
Tel. ++39 0187 562953 Fax ++39 0187 562955 www.euroguarco.com

# FASIT® OMNIA

Non-asbestos jointing sheet, composed of kevlar® aramid fibres and high temperature resistant mineral fillers, bonded with high ACN-content NBR rubber. The formulation gives the material excellent chemical stability and resistance to creep.



# **Applications**

Universal use, gases, hydrocarbons, solvents, low pressure steam, mild acids and alkalis. Suitable for food industry, public utilities, water treatment plants, chemical plants, oil industry, etc.

**Technical Data** (values relate to 2 mm thickness)

Density	DIN 3754		~ 1.8	g/cm <sup>3</sup>
Service limits*:				
Max. short term temperature			370	${\cal C}$
Max. continuous operating temperature with non-aggressive media			320	${\cal C}$
Max. continuous operating temperature with steam			200	$\mathcal C$
Max. operating pressure	***************************************		100	bar
Compressibility	ASTM F36	*********************	8	%
Recovery	ASTM F36	min.	55	%
Stress retention:	DIN 52913			
- 16 hrs, 300℃, 50 N/mm <sup>2</sup>		min.	22	N/mm <sup>2</sup>
- 16 hrs, 175℃, N/mm <sup>2</sup>		min.	30	N/mm <sup>2</sup>
Tensile Strength (across grain)	DIN 52910	min.	12	N/mm <sup>2</sup>
Gas permeability (N₂, 40 bar, 30 N/mm², 200℃)	DIN 3535/4-28090	max.	0.05	mg/m sec
Ignition loss	DIN 52911	max.	30	%
Immersion test in ASTM Oil 3 for 5 hrs. at 150°C	ASTM F146			
- weight increase	7.5	max.	10	%
- thickness increase		max.	5	%
Immersion test in ASTM Fuel B for 5 hrs at 20°C	ASTM F146	•••••••••••••••••••••••••••••••		
- weight increase		max.	10	%
- thickness increase		max.	5	%
- tensile strength		min.	7	N/mm <sup>2</sup>
Gasket constants according to PVRC – ROTT test		thick.:	1.5 mm	
Gb			6.4	N/mm <sup>2</sup>
a			0.25	0
Gs			0.0011	N/mm²

<sup>\*</sup> Service limits are recommended for proper seating conditions and gasket design

### Supply data:

Surface colour:

blue

Sheet size - Standard Thickness:

Sheet size - Standard: 1500 x 1500 mm (upon request: 1500x3000, 1500x4500 mm) tolerance: +/- 50 mm

from 0.3 to 5.0 mm

tolerance: +/- 10%

Surface finish:

4xA anti-stick coating or graphite powder Available upon request

# References:

DIN-DVGW (gas industry), SVGW (gas industry), BAM (oxygen), HTB (high temp.), Germanische Lloyd (ship's systems), DuPont, ENI, Tecnimont, Italian Ministry of Defence (ship's systems), Nuovo Pignone, Fincantieri, Italian Railways, ELF, SNCF, etc. BS 7531 grade Y, DIN 28091 FA - A1 - 0

Note: FASIT® jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests results, are meant as non-binding guideline for gasket selection.