1. Introduction

This document defines the minimum technical requirements required for the surface preparation and painting of Carbon Steel and Stainless-Steel Valves ordered by JGC as per UCC-930-SPE-MT-BP3-1004

2. Scope

2.1 This procedure applies to all Carbon Steel and Stainless-Steel Valves that requires painting (based on max operating temperature) ordered by JGC.
2.2 All activity starting preparation, blasting, and painting are doing at PT. MPIW.
2.3 Inspector witness each step of the preparation, coating application and inspection at PT. MPIW

3. Key Reference

This procedure shall comply with all relevant information as required by JGC Document UCC-930-SPE-MT-BP3-1004 & Norsok M501

4. Paint to be Used for Valves having Temperature -50 to +200 Deg C for Carbon Steel and -80 to +200 Deg C for Stainless Steel

Paint System	Area or item	Coating System	Finish Color	Dry Film Thickness
CSDS 1D	Carbon Steel Valves, Insulated, non-insulated -50°C to +200°C	Blast ISO 8501 Sa 2½ 1. Primer: Epoxy Phenolic (Interbond 2340UPC) 2. Second: Epoxy Phenolic (Interbond 2340UPC) 3. Top Coat : Silicone Acrylic (Intertherm 875)	Aluminium (RAL 9006)	1) 125 microns 2) 125 microns 3) 25 microns Total 275 microns
CSDS 10A	Carbon Steel Valves, Insulated, non-insulated Equal and larger than +200°C	Blast ISO 8501 Sa 2½ 1. Primer: (Jotatemp 1000) 2. Second: (Jotatemp 1000)	Aluminium Effect (RAL 9006)	1) 125 microns 2) 125 microns Total 250 microns (Jotatemp 1000)
CSDS 6C	Stainless Steel Valves, Insulated, non-insulated -80°C to +200°C	Blast as per SSPC SP16 for Stainless Steel 1. Primer : (Epoxy Phenolic) Interbond 2340UPC 2. Second : Epoxy Phenolic (Interbond 2340UPC) 3. Top Coat : Silicone Acrylic (Intertherm 875)	Aluminium (RAL 9006)	1) 125 microns 2) 125 microns 3) 25 microns Total 275 microns

Proposed Plate dimensions for CSDS 1D and 6C:

- CS-1: 300 x 300 mm (thickness: 17 mm)
- CS-2: 300 x 300 mm (thickness: 12 mm)
- CS-3: 300 X 300 mm (thickness: 17 mm)
- SS-1: 300 x 300 mm (thickness: 10mm)
- SS-2: 300 x 300 mm (thickness: 10mm)

Proposed Plate dimensions for CSDS 10A:

- CS-1: 300 x 300 mm (thickness: 14 mm)
- CS-2: 300 x 300 mm (thickness: 16mm)

Proposed Valves for CSDS 1D and 6C:

- CV-1: Swing Check Valves size 3" ANSI Class 300#
- CV-2: Swing Check Valves size 3" ANSI Class 300#
- SV-1: Gate Valves size 3" ANSI Class 600#

Proposed Valves for CSDS 10A:

CV-1: Swing Check Valves size 4" ANSI Class 300#
CV-2: Swing Check Valves size 4" ANSI Class 300#

5. Pre-qualification of materials.

Performance (pre-qualification) testing shall be caried out if required according to UCC-930-SPE-MT-BP3-1004 Annex F and performance qualification documentation shall be submitted with the CPS.

6. Certification of Personnel/Operators

6.1 Operator shall be certified to AMPP, ACQPA, ICATS or equivalent certification programmed approved by end user. Alternatively, these operators can be qualified according NORSOK M-501 Annex I

6.2 Inspectors who performed PQT shall be individually certified in accordance with AMPP, FROSIO, ICORR level III (Inspector AMPP certified) and inspector according to FROSIO surface treatment, NACE or ICORR to inspector Level II may carry out the inspection work under the supervision of an inspector level III

7. Paint Handling, Storage and Safety

7.1 All paints received are to be coded correctly when received from suppliers, include mixing in accordance with manufacturer's recommendation.
7.2 The shelf life from the fabrication dates is: 1 year
7.3 Paint that has jelled or otherwise deteriorated shall not be used.
7.4 Painting area must be well ventilated, clean and away from fire risks.
7.5 Smoking or the carrying of lighters and matches near the painting area is prohibited.
7.6 Appropriate protective clothing shall be worn by paint operator.
7.7 Paint manufacturer's safety data sheet shall be reviewed by Production Manager and Operator.

8. Handling and Identification of Valves

8.1 Valves shall be handled correctly at all times to minimize surface contamination or coating damage.
8.2 Valve identity and traceability shall be maintained throughout the blasting and painting process.

9. Surface to be abrasive blasted and painted

9.1 All valve surfaces made from Cast Steel and Stainless Steel
9.2 All Internal valve surfaces and external valve end that will be in contact during installation (Raised Faces, RTJ, Screw Ends etc.) will not to be blasted and painted

10. Cleaning

10.1 Before masking and abrasive blasting shall be follow ISO 8501-2, grade P3, valves shall be examined for irregularities, weld spatter, sharp edges, mill scale and contaminants such as grease and general pollution which must be removed if present.
10.2 Grease or oil contamination must be removed by wiping or removed accordance to SSPC SP1, Solvent cleaning followed by wiping with a clean cloth.

11. Masking

11.1 Surfaces not to be painted shall be protected from blast media and paint by wrapping in masking tape or effectively sealed off by other means.
11.2 Valve ends shall be closed off so that no blast media or paint shall enter the valve.
11.3 Name plates if present shall be removed before blasting.
11.4 Surface of RF Flanges shall cover with hard cover during blasting to avoid any damage in damage

12. Surface Preparation

12.1 All surfaces shall be prepared and dry blasted in accordance with ISO 8501-1 Sa2½ and UCC-930-SPE-MT-BP3-1004 and SSPC SP16 for Stainless Steel.
12.2 Abrasives material shall be dry, clean and conductivity shall be less than $\mathbf{150.10^{-6}}$ Siemens/cm as per ASTM D4940. Type and size of abrasive materials as per describe in MSDS for Cast Steel Shot and MSDS for Brown Aluminum Oxide
1) Abrasive type and size to be use and provide test data to prove selected abrasive meet ISO standard requirements.
2) To use recycle abrasive is not allowed.
3) All spent abrasive shall be removed prior to blast cleaning.

12.3 Carbon Steel surfaces to be coated shall be cleaned by abrasive blasting using Steel Grit as per ISO 11124-3 for Carbon Steel and non-metallic Abrasive (Garnet, Aluminum Oxide or equivalent) for Stainless Steel

12.4 The maximum dust is level 2 according to ISO 8502-3 and maximum level of water-soluble salts will be 20 mg/m2 according to ISO 8502-6 / ISO 8502-9

12.5 Surface profile measurement should include, as per ASTM 4417 method B or C

12.6 Care shall be taken not to blast away stamped identification characters or other essential marks on the valves. Bolt holes to be blasted and painted as specified coating system.

12.7 After blasting valves will be cleaned by brushing and/or with compressed air before painting.

13. Painting

13.1 Before work commences, all the selected painting systems shall be applied on samples representative of the structure to be painted. The products used shall be sampled from the same batches as these intended for the works. The system shall be applied in presence of the paint Supplier and the Company representative, in climatic conditions that are as similar as possible to the worst-case conditions that can be foreseen during the work on the construction site. Application shall be performed by the painting specialist who will be responsible for application during the work, using the same dedicated equipment that will be used during the work. During surface preparation and paint application. When the painting systems are fully cured, visual inspection and adhesion testing shall be carried out to confirm that the performance of the painting systems meets those specified for each application included in system to be qualified. PQT report including in technical file to be hand over to Company.

13.2 Pre-production paint system qualification shall be done by test panels in accordance with following requirements:

1) Surface shall be re-blasted if the application of the primer cannot be completed within four hours of preparing the surface or within the recommended by the coating manufacturer, whichever shorter.
2) Edges of existing coating shall be feathered towards the substrate prior to overcoating
3) Each coat shall be applied uniformly over the entire surface. Skips, runs, sags and drips shall be completely removed and the area repaired to meet the required DFT. Each coat shall be free from pinholes, blisters, and holidays. Contaminations on painted surfaces between coat shall be avoided. Any contamination shall be removed.
4) Paint mixing/thinning and re-coating interval strictly follow as recommended by paint product data sheet.
5) Painting system shall be dried and cured for the time and temperature specified in the coating manufacturer's PDS.
6) DFT requirements for each coat strictly comply as recommended by CSDS.

The following testing criteria shall be achieved prior to start the painting work production

13.3 Painting shall be carried out in accordance with the paint manufacturer's recommendations by suitably trained and experienced personnel.

13.4 The finishing coat of the required color shall be sufficiently opaque to cover the shade of the undercoat. - Stripe coats Before spraying each coat, stripe coats shall be applied by brush to all angles, corners, sharp edges, bolt or rivet heads, etc. with the same product applied on the surface to be painted.

13.5 Painting shall not be carried out:

a. If air temperature is below 5°C.
b. If relative humidity is greater than 85%.
c. If metal surface temperature is less than 3°C above the ambient dew point.
d. If priming cannot be completed within 4 hours of preparing the surface.
   Note: The only relaxation allowable to this requirement is if the work is fully enclosed, the temperature is above 10°C, the humidity is below 75%, and the original specific standard of surface preparation is fully retained up to the time of coating application. Any such relaxation shall be entirely at Company's discretion.
e. Outside daylight hours on exterior locations, unless special lighting arrangements have been provided and approved by Company.

f. If directed by Company due to impending adverse weather conditions, ongoing surface preparation may be suspended if there is unlikely to be sufficient time for painting to be completed and/or the paint to have dried sufficiently to withstand weather damage.

14. Repair of Painting

Repair of Painting shall be in accordance to the applicable coating system.

14.1 Film Defect

Defects such as misses and poor hiding power for example shall be repaired by applying additional coating(s) as required.

Defects such as poor finish, texture, sagging, runs and overspray shall be removed by abrading the film to remove the defect and then applying additional coating(s) as required.

Defects such as poor adhesion, pinholes, holidays and cracking shall be completely removed by abrading through to substrate and reapplying the complete system.

14.2 Damaged Up to Substrate

(Damage has penetrated all coating layers down to bare metal)

Step-by-Step Repair Procedure:

1. **Mark and Assess the Damage**
   - Identify the total area affected.
   - Ensure no hidden rust or pitting is present beyond the visible area.
2. **Surface Preparation**
   - Mechanically or manually clean the area to **Sa 2½** (ISO 8501-1) using blast cleaning or power tools.
   - Ensure the surface profile matches the original (typically 30–75 µm roughness).
   - Remove all contaminants, dust, oil, salt, and moisture.
3. **Feather Edges of Adjacent Coating**
   - Taper surrounding coating edges using abrasive paper or disk grinder to ensure proper blending.
   - Minimum feathering radius typically **25–50 mm** around the damage.
4. **Re-Application of Coating System**
   - Apply full original coating system in layers:
     - **Primer Coat**
     - **Second Coat**
   - Follow specified **DFT (Dry Film Thickness)** for each layer.
5. **Curing and Inspection**
   - Allow proper curing time per manufacturer datasheet.
   - Check for:
     - DFT (with gauge)
     - Adhesion (if required, ASTM D3359 or D4541)
     - Visual defects (sags, runs, pinholes)
   - Perform holiday test if required (especially in immersion service).

14.3 Damaged Between Coats

(Damage has not penetrated to substrate; for example, topcoat scratched or intermediate coat damaged)

Step-by-Step Repair Procedure:

1. **Clean the Area**
   - Use detergent and fresh water or solvent cleaning (ISO 8502-3).
   - Remove dirt, chalking, or loose coating.
2. **Light Surface Abrasion**
   - Abrade the exposed coating to remove loose/weak layers and improve adhesion.
   - Hand sanding or mechanical scuffing with appropriate grit
3. **Check Compatibility of Coats**
   - Confirm recoat window hasn't expired.
   - If expired, full sanding or solvent wipe-down is necessary.

4. **Recoat with Required Layer(s)**
   - Re-apply only the missing layer(s):
   - Blend edges carefully to ensure smooth transition.
   - Apply within environmental limits (temp, humidity, dew point).
5. **Inspection**
   - Check for DFT, gloss, color uniformity, and adhesion.
   - Visual acceptance: No pinholes, bubbles, or poor blending.

14.4 **Inadequate Coating Thickness**

Areas with inadequate coating thickness shall be abraded and have additional compatible coats applied until they meet the requirements of this specification.

14.5 **Contaminated Surfaces**

Surfaces to be over coated which become contaminated but not damaged shall be cleaned in accordance with coating PT. MPIW recommendations and abraded as necessary prior to applying subsequent coats. Any completed coating showing signs of inter coat contamination shall be cleaned back to the degree necessary to remove the contaminants, and recoated.

14.6 **Defect**

14.6.1 **Major defect** (Paint Product, Applications, Non-Conformity of test Result)

The paint shall be removed completely by abrasive blast-cleaning and entire system shall be re-applied.

14.6.2 **Minor defect** (Localized Appearance, Mechanical Damage)

The damaged area shall be re-cleaned as originally specified for that surface or prepared by power tool cleaning. The re-cleaning shall carry over into the secure surrounding coating, the area chamfered and repairs completed as in Section 14.4.1 above.

15 Inspection and Testing

Inspection and testing shall be carried out as per requirements. Compliance to this specification shall be controlled through inspection of each phase of a painting programme. Inspection is required during all phases of surface preparation and coating application.

An inspection test plan including all the points of inspections as per UCC-930-SPE-MT-BP3-1004 shall be prepared and submitted to Company for approval. The Inspection Test Plan shall clearly indicate frequency of testing for each check.

Painting Inspector shall make a daily record and report in writing the results of his inspections.

This report shall include details of the following:

a. Receipt and correct storage of coating materials including batch numbers and product reference numbers. Contractor to implement FIFO (first in first out) considering life of paint material. Vendor also record below points:
   1) Pre-cleaning requirements including surface defects/contaminants removal/blotter test etc.,
   2) Surface cleanliness check including grade/dust etc.,
   3) Each coat product name/thickness
   4) Adhesion test
   5) Repair etc.,

a. Items being painted/lined.
b. Location of work.
c. Ambient conditions, recorded at least 4 times per day at the place of work, i.e. atmospheric temperature, relative humidity, dew point, metal surface temperature, and general weather conditions. Painting shall not proceed if ambient temperature or humidity exceeds limit, stop work to avoid condensation risk.
d. Condition of abrasives and equipment.
e. Surface preparation quality and profile; the latter recorded by replica technique or equivalent at least 4 times per day on prepared steel surfaces.
f. The maximum allowable water soluble salt value should be 20 mg/m2.
g. Colour, wet and dry film thickness of paint coating on each item painted.
h. Repairs or other further work necessary.
i. Calibration of inspection instruments.

j. Details of any problems together with details of their resolution and actions taken to prevent their recurrence.
k. Signature of Contractor's personnel responsible for inspection approving individual items of work.

Detailed inspection activities for each coating system (CSDS 1D, CSDS 6C and CSDS 10A) as mentioned on UCC Coating Specification Onshore and Offshore (amendment to Norsok M-501) Table 2 – Inspection and Testing (UCC-930-SPE-MT-BP3-1004 Rev A04) are as follows:

Inspection for CSDS 1D

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M-501-2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.9, 12,10, 12.12, 12.13 and 12.15A

Inspection for CSDS 6C

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M-501-2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.8, 12.9, 12,10, 12.12, 12.13, 12.14 and 12.15A

Inspection for CSDS 10A

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M-501-2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.9, 12,10, 12.12, 12.13, and 12.5B

16 Responsibilities

Production Manager to oversee blasting and painting operation.
Quality Control/Engineering Manager to oversee testing, inspection and document preparation.

17 Verification

Visual paint inspections, profile test, adhesion test by Quality Control Department.
Preparation of Painting records by Quality Control Department.

18 Warranty

Paint system warranty shall be valid for 3 years under ISO 12944 CX environment, subject to proper application and maintenance.

Attachment:
1. Coating System Data Sheet overview.
2. List of equipment surface preparation and painting.
3. Certificate of painting inspector.
4. Technical Data Sheet (TDS) from manufacturer.

CSDS no 1.D

Coating System Data Sheet		System 1D	Rev 0
Substrate Material	Carbon Steel	Corrosivity Category	CX ‑EN ISO 12944‑2

Items to be coated: Structures, structural components, equipment items, piping, and valves.

Service: Offshore and coastal environment‑non‑insulated, insulated,

Operating temperature range: ‑50℃ to +200℃[Note 1]

Surface preparation requirements

Pre‑blasting preparation: P3, ref EN ISO 8501‑3[Note 2], Surface cleaning to meet: "clean" ref ASTM F22 Water Break Test

Surface cleanliness: SA 2½, ref. NS‑EN ISO 8501‑1 Dust level max quantity and rating 2, ref. NS‑EN ISO 8502‑3

Surface roughness: 50µm to 85µm ref. EN ISO 8503‑1, EN ISO 8503‑2 with grit comparator only, EN ISO 8503‑4 and/or EN ISO 8503‑5

Max. level of water‑soluble salts: 20 mg/m2, ref. NS‑EN ISO 8502‑6/NS‑EN ISO 8502‑9

Generic description of the coating system

Coat number	Generic Type	DFT	MAX DFT
1: Primer	Epoxy, Epoxy phenolic, Epoxy novolac	125 µm	The maximum DFT for each coat shall be within the limits given in the relevant coating application data sheet.
2: Topcoat	Epoxy, Epoxy phenolic [Note 3].	125 µm	
Total MDFT		250µm	

Pre‑qualifications, procedure qualifications and inspection requirements

Pre‑qualification tests: As per Table 1 of NORSOK M‑501‑2022‑activity 11.6. 11.7 and 11.8

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M‑501‑2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.9, 12,10, 12.12, 12.13 and 12.15A

Adhesion: Max. 50 % reduction of value from the CPT during production, but any measurement shall be min. 5 MPa, ref Table 2 notes 7 and 8 and details in Annex J of NORSOK M‑501‑2022

Repair requirements of damage on newly applied coating

Damage exposing steel surface: Same requirements apply as for the original system.

Damage not exposing steel surface: Clean and feather and re‑apply the missing coating layers as per the qualified system.

Note 1‑ The selected coating material shall be qualified for the actual maximum operating temperature.

Note 2‑ For castings steel preparations grade P2 is permitted.

Note 3‑If uninsulated, then a UV resistant topcoat should be applied as per manufacturer's recommendation.

CSDS no 10.A

Coating System Data Sheet		System 10A	Rev 0
Substrate Material	Carbon Steel and Low Alloyed Steel	Corrosivity Category	CX, ref. -EN ISO 12944-2

Items to be coated: Equipment items, piping, and valves for high temperature service.

Service: Offshore and coastal environment, non-insulated and insulated.

Operating temperature range: > + 200°C [Note 1]

Surface preparation requirements

Pre-blasting preparation: P3, ref EN ISO 8501-3 [Note 2], Surface cleaning to meet: "clean" ref ASTM F22 Water Break Test

Surface cleanliness: Sa 2 ½, ref NS-EN 8501. Dust level max quantity and rating 2, ref. NS-EN ISO 8502-3

Surface roughness: 50 µm to 85 µm ref. EN ISO 8503-1, EN ISO 8503-2 with grit comparator only, EN ISO 8503-4 and/or EN ISO 8503-5

Max. level of water-soluble salts: 20 mg/m2, ref. NS-EN ISO 8502-6/NS-EN ISO 8502-9

Generic description of the coating system

Coat number	Generic Type [Note 2]	MDFT	MAX DFT
1: Primer	Inorganic copolymer, inert multi polymeric matrix coating	DFTs shall be as per the qualified system.	The maximum DFT for each coat shall be within the limits given in the relevant coating application data sheet.
2: Topcoat	Inorganic copolymer, inert multi polymeric matrix coating		
Total DFT			

Pre-qualifications, procedure qualifications and inspection requirements

Pre-qualification tests [Note 3]: As per Table 1 of NORSOK M-501-2022-activity 11.6 and 11.8

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M-501-2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.9, 12,10, 12.12, 12.13, and 12.5B

Adhesion: Cross cut test, meeting classification 0-2, ref Table 2, note 9 of NORSOK M-501-2022. If the DFT exceeds 250 µm, X-cut testing shall be performed and shall meet max level 2.

Repair requirements of damage on newly applied coating

Damage exposing steel surface: Same requirements apply as for the original system.

Damage not exposing steel surface: Clean and feather and re-apply the missing coating layers as per the qualified system.

Note 1- The actual temperature range shall be prequalified.

Note 2- The required downtime needs to be accounted for when selecting coating materials.

Note 3- In addition, high temperature testing according to ASTM D2485 Method B or alternative testing specified by the purchaser is required.

CSDS no 6.C

Coating System Data Sheet		System 6C	Rev 0
Substrate Material	Stainless Steel, 300 series, DSS-22Cr, SDSS-25Cr, 6 Mo	Corrosivity Category	CX -EN ISO 12944-2

Items to be coated: Pressure vessels, piping, and valves.

Service: Offshore and coastal environment, insulated.

Operating temperature range: -80°C to +200°C Note 1

Surface preparation requirements

Pre-blasting preparation: P3, ref EN ISO 8501-3 Note 2, Surface cleaning to meet: "clean" ref ASTM F22 Water Break Test

Surface cleanliness Note 3: Sweep blast, ref SSPC -SP 16, ref. EN ISO 8501-3 Dust level max quantity and rating 2, ref. NS-EN ISO 8502-3

Surface roughness: 25µm to 85µm ref. EN ISO 8503-1, EN ISO 8503-2 with grit comparator only, EN ISO 8503-4 and/or EN ISO 8503-5

Max. level of water-soluble salts: 20 mg/m2, ref. NS-EN ISO 8502-6/NS-EN ISO 8502-9

Generic description of the coating system

Coat number	Generic Type Note 4	MDFT Note 4	MAX DFT
1: Primer	Epoxy, Epoxy phenolic, Epoxy novolac	125µm	The maximum DFT for each coat shall be within the limits given in the relevant coating application data sheet.
2: Topcoat	Epoxy, Epoxy phenolic, Epoxy novolac	125µm	
Total DFT		250µm	

Pre-qualifications, procedure qualifications and inspection requirements

Pre-qualification tests: As per Table 1 of NORSOK M-501-2022-activity 11.6 and 11.8

Inspections during Coating Procedure Test and Production: As per Table 2 of NORSOK M-501-2022 activities: 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.8, 12.9, 12,10, 12.12, 12.13, 12.14 and 12.15A

Adhesion: Max. 50 % reduction of value from the CPT during production, but any measurement shall be min. 5 MPa, ref Table 2 notes 7 and 8 and details in Annex J of NORSOK M-501-2022

Repair requirements of damage on newly applied coating

Damage exposing steel surface: Same requirements apply as for the original system.

Damage not exposing steel surface: Clean and feather and re-apply the missing coating layers as per the qualified system.

Note 1- The selected coating material shall be qualified for the actual maximum operating temperature.

Note 2- For castings steel preparations grade P2 is permitted.

Note 3- Only non-metallic and chloride free abrasive shall be used.

Note 4- Coatings for stainless steel shall not contain metallic zinc.

Note 5-300 Series & DSS -Coating required for all applications. SDSS Coating required for all applications >90°C. 6 Mo and other highly alloyed austenitic steels PREN >40, Coating required for applications with operating temperatures above 100°C.

Note: For non-insulated service, an additional UV resistant topcoat is required

PT. METINCA PRIMA INDUSTRIAL WORKS

Equipment Surface Preparation And Painting

No	Nama Alat	Merek, Tipe & Spesifikasi	No. ID/ No.Seri	No Certifikat	Kapasitas Alat	Lembaga Kalibrasi	Tgl Kalibrasi	Tgl Kalibrasi Ulang	Status Kalibrasi	Kegunaan	Keterangan
1	Coating Thickness Film	-	cm50,100,300,500	UAL/08080/25	cm50,100,300,500	PT Mandiri Transforma Global	13-Aug-25	12-Aug-26	OK	Film Kalibrasi DFT	
2	Infrared Termometer	Benetech	IT -01	B08250826	-50°C - 400°C	PT Caltesys	09-Aug-25	08-Aug-26	OK	Inspeksi Steel Temperatur	
3	Wet Film Standard	Elecometer	WFC/MCI/3000/01	B10240974	0 ~ 3000 µm / 25 µm	PT Caltesys	11-Oct-24	10-Oct-25	OK	Inspeksi WFT	
4	Coating Thicknes Gauge	-	CTG-02	UAL/11308/24	0 ~ 1500 µm	PT Mandiri Transforma Global	19-Nov-24	18-Nov-25	OK	Inspeksi DFT	
5	Digital Humadity & temp	UYIGAO	T-003	S.048897	-20~70 ^{0}C / 0~100 %RH	PT Yamamoto Keiki Indonesia	07-Mar-25	02-Mar-26	OK	Inspeksi Kelembapan Area	
6	Digital Thicness Gage	Anyi Instrument	QS 18037 (M-01)	S.049736	0 ~ 10 mm	PT Yamamoto Keiki Indonesia	24-Jun-25	23-Jun-26	OK	Inspeksi Surface Profil	
7	Testex Tape Press O Film	Elecometer	-	-	38 to 115 µm	-	-	-	-	Inspeksi Surface Profil	
8	Dust Test Tape	-	-	-	-	-	-	-	-	Inspeksi Dust Level	

Bekasi,26 September 2025

Disiapkan Oleh,
Admin QC

(Rifamdi I)

Disetujui Oleh
Supervisi QC

(Yunan P.P)

Diketahui Oleh
Manager QC

(Sabaruddin S)

METINCA Prima Industrial Works BEKASI - INDONESIA

669151

AMPP™ Certificate of Achievement

The Association for Materials Protection and Performance Recognizes

Didik Distyo Budi

As a Certified

Senior Certified Coatings Inspector

Executive Director
AMPP

Expires

November 23, 2025

Cert No.N-51995

PT METINCA PRIMA INDUSTRIAL WORKS

PAINTING INSPECTION REPORT

Form NO	: F/QAC/PIR/006
Revision	: 1
Date Issued	:

Report No :
Date :
JO No :

Costumer :
PO No :
Item No :

Painting Methode ☐ Airless ☐ Conventional

Material Spec :

Replica tape (if any)

Degre of Surface Preparation	Surface Cleanliness	Surface Profile	Salt Test
	ISO 8501-2	ISO 8503-5	ISO 8502-9
Requirement	SSPC SP-5 / Sa3	40-75	
Actual	SSPC SP-5 / Sa3		

Weather Condition						
Time Apply						
WT						
DT						
DP						
Rh						
ST						

Paint Information						
No Layer	**Brand Name**	**Batch No**	**Colour**	**Mixing Ratio**	**Thinning**	**Application Methode**

Painting Process

No	Type	Size	Class	Serial No	1st Layer (DFT 75 Microns) *60-90 Microns		Dry Time Min (Hrs)	2nd Layer (DFT 125 Microns) *100-150 Microns		Dry Time Min (Hrs)	3rd Layer (DFT 125 Microns) *100-150 Microns		Dry Time min (Hrs)	4th Layer (DFT 50 Microns) *40-60 Microns		Dry Time min (Hrs)	Total Dry Time max (Days)	Remaks
					WFT	DFT		WFT	DFT		WFT	DFT		WFT	TOTAL DFT			

* Note : DFT for single value as per SSPC PA-2 clause 9 Maximum and minimum is ± 20%

Prepared by

Approved by

Witnessed & Reviewed by

Interbond® 2340UPC

Universal Pipe Coating

PRODUCT DESCRIPTION

A high temperature pipe coating providing corrosion resistance in accordance with the ISO 12944-9 standard at ambient temperatures delivering productivity savings compared to inorganic zinc silicate and traditional epoxy phenolic based systems.

Based on alkylated amine epoxy technology, Interbond 2340UPC is a next generation epoxy phenolic coating for high temperature applications.

INTENDED USES

External protection for process pipes, valves and vessels operating between the temperatures of -196°C (-321°F) and 230°C (446°F).

Suitable for use on both carbon and stainless steel in insulated or uninsulated conditions, as well as cryogenic service.

Due to its superior high DFT tolerance, Interbond 2340UPC significantly reduces the risk of thick film cracking when compared to traditional epoxy phenolic coatings.

Interbond 2340UPC eliminates the temperature and humidity requirements associated with inorganic zinc coatings resulting in better quality and productivity in all climates.

PRACTICAL INFORMATION FOR INTERBOND 2340UPC

Colour	Grey, Pink, Olive Grey
Gloss Level	Semi Gloss
Volume Solids	60%
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 167-333 microns (6.7-13.3 mils) wet
Theoretical Coverage	3 m²/litre at 200 microns d.f.t and stated volume solids 120 sq.ft/US gallon at 8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Roller

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
-5°C (23°F)	7 hours	10 hours	14 hours	14 days
10°C (50°F)	5 hours	8 hours	10 hours	14 days
20°C (68°F)	4 hours	6 hours	7 hours	14 days
35°C (95°F)	2 hours	4 hours	4 hours	10 days

REGULATORY DATA

Flash Point (Typical)	Part A 28°C (82°F); Part B 26°C (79°F); Mixed 28°C (82°F)	
Product Weight	1.22 kg/l (10.2 lb/gal)	
VOC		
	3.25 lb/gal (390 g/lt)	EPA Method 24
	318 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)

See Product Characteristics section for further details

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning
This product must only be applied to surfaces prepared by abrasive blast cleaning to a minimum Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Interbond 2340UPC must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Power Tool Cleaning (Small Areas Only)
For small areas of touch up repair and welds, power tool cleaning to SSPC SP11 is suitable. Optimum performance will be achieved with a minimum surface profile of 50 microns (2 mils).

Austenitic Stainless Steel
Ensure surface is clean, dry and free from metal corrosion products prior to application. Abrasive blast with non-metallic and chloride free abrasive (e.g. aluminium oxide or garnet) to obtain an average anchor profile of 35 microns (1.4 mils).

APPLICATION

Mixing

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Mix Ratio

3 part(s) : 1 part(s) by volume

Working Pot Life

-5°C (23°F)	10°C (50°F)	20°C (68°F)	35°C (95°F)
6 hours	4.5 hours	3 hours	1 hour

Airless Spray	Recommended	Tip Range 0.48-0.6 mm (19-24 thou) Total output fluid pressure at spray tip not less than 211 kg/cm² (3000 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved
Thinner	International GTA220	Not normally required

Cleaner

International GTA822 or International GTA220

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up

Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

PRODUCT CHARACTERISTICS

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Apply by airless spray only. Application by other methods, e.g. brush, roller, may require more than one coat and should only be used for small areas or touch-up work.

When applying Interbond 2340UPC by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Steel surface temperature must always be a minimum of 3°C (5°F) above dew point.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected.

In common with all epoxies Interbond 2340UPC will chalk and "yellow" on exterior exposure. Interbond 2340UPC will also show a marked colour change when exposed to higher temperatures. However, these phenomena are not detrimental to anti-corrosive performance provided recommended temperature limits are not exceeded.

Interbond 2340UPC is suitable for protection of insulated steelwork, which may cycle between wet and dry conditions, and is operating at continuous in-service temperatures ranging from -196°C (-321°F) to 205°C (401°F), with intermittent surges up to 230°C (446°F).

When applying Interbond 2340UPC in confined spaces ensure adequate ventilation.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interbond 2340UPC is normally applied direct to metal and is compatible with a number of topcoats.

Suitable topcoats are:

Interthane 870
Interthane 990
Intertherm 875

For advice on topcoat compatibility and overcoating windows please consult International Paint.

The maximum temperature resistance of the coating scheme may be limited by the topcoat.

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
20 litre	15 litre	20 litre	5 litre	5 litre
5 US gal	3 US gal	5 US gal	1 US gal	1 US gal

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	21.1 kg	5.2 kg
5 US gal	36.9 lb	8.7 lb

STORAGE

Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

www.international-pc.com

Intertherm® 875

High Temperature Silicone Acrylic

PRODUCT DESCRIPTION

A single component, intermediate temperature finish based on temperature resistant silicone and acrylic resins with thermally stable pigmentation.

INTENDED USES

For use in a wide range of industrial environments including petrochemical plants, oil refineries, offshore structures, chemical plants and power stations. Suitable for areas subject to intermediate service temperature that require a colored finish.

A heat resistant finish coat for application over properly primed steelwork. For use at both new construction and as a maintenance coating.

Suitable for steelwork operating at temperatures up to 500°F (260°C). Does not require heating between coats.

PRACTICAL INFORMATION FOR INTERTHERM 875

Color	Limited color range available
Gloss Level	Gloss
Volume Solids	39%
Typical Thickness	1-1.6 mils (25-40 microns) dry equivalent to 2.6-4.1 mils (64-103 microns) wet
Theoretical Coverage	626 sq.ft/US gallon at 1 mils d.f.t and stated volume solids 15.60 m²/liter at 25 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
50°F (10°C)	60 minutes	3 hours	4 hours	Extended[1]
59°F (15°C)	45 minutes	2 hours	3 hours	Extended[1]
77°F (25°C)	30 minutes	90 minutes	2 hours	Extended[1]
104°F (40°C)	10 minutes	45 minutes	1 hour	Extended[1]

[1] See International Protective Coatings Definitions & Abbreviations

REGULATORY DATA

Flash Point (Typical)	75°F (24°C)	
Product Weight	8.9 lb/gal (1.07 kg/l)	
VOC	4.68 lb/gal (562 g/lt) 534 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Intertherm® 875

High Temperature Silicone Acrylic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to SSPC SP10 or Sa2½ (ISO 8501-1:2007). If oxidation has occurred between blasting and application of Intertherm 875, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

Intertherm 875 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination, and Intertherm 875 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

In the case of zinc primers, where necessary, remove weld spatter, smooth weld seams and sharp edges and blast clean welds and damaged areas to SSPC-SP10 or Sa2½ (ISO 8501-1:2007). The shop primer or other primer surface should be dry and free of all contamination (oil, grease, salt etc) and overcoated with Intertherm 875 within the overcoating intervals specified for the primer (consult the relevant product datasheet).

Weld seams and damaged areas should be blast cleaned to SSPC-SP10 or Sa2½ (ISO 8501-1:2007).

Ensure the zinc primer has fully cured and is clean, dry and free from zinc salts prior to overcoating.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Not recommended	
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment.
Brush	Suitable - Small areas only	Typically 1.0 mils (25 microns) can be achieved
Roller	Suitable - Small areas only	Typically 1.0 mils (25 microns) can be achieved
Thinner	International GTA007 (International GTA013)	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA007	

Work Stoppages

Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.

Clean Up

Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Intertherm® 875

High Temperature Silicone Acrylic

PRODUCT CHARACTERISTICS

For optimum corrosion protection at temperatures up to 500°F (260°C) Intertherm 875 should be applied over an inorganic zinc silicate primer. The preferred system for use with inorganic zinc silicate is to apply a mist coat followed by a full coat of Intertherm 875 at 1.6 mils (40 microns) dry film thickness. Application of two full coats can sometimes result in pinholes in the topcoat.

When overcoating weathered zinc silicate primers the surface should be clean, free from contamination, and the presence of zinc corrosion products.

Zinc epoxy primers will also provide satisfactory anti-corrosive protection for in-service temperatures up to 300°F (150°C).

This material is air drying and is suitable for application both in the fabrication yard and on-site where stoving facilities are not available.

Over-application can lead to blistering at high temperatures.

Some minor color and gloss changes will be visible upon high heat exposure.

Note that some yellowing will occur with prolonged exposure of the white finish to temperatures of 500°F (260°C).

Maximum continuous dry temperature resistance for Intertherm 875 is 500°F (260ºC).

Intertherm 875 can be applied to substrates with surface temperatures at time of application up to 104°F (40°C).

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to color differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also effect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

This specialist material is not normally topcoated, and is only compatible with a very limited number of primers:

Suitable primers are:

Interzinc 12	Up to 500°F (260°C) continuous dry temperature
Interzinc 22	Up to 500°F (260°C) continuous dry temperature
Interzinc 52	Up to 300°F (150°C) continuous dry temperature
Interzinc 315	Up to 300°F (150°C) continuous dry temperature

For other suitable primers consult International Protective Coatings.

Intertherm® 875

High Temperature Silicone Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 liter	20 liter	20 liter
	5 US gal	5 US gal	5 US gal
	For availability of other pack sizes contact International Protective Coatings		
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 liter	23.4 kg	
	5 US gal	53.6 lb	
STORAGE	Shelf Life	24 months minimum at 77ºF (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Disclaimer

Issue date: 2/5/2015

www.international-pc.com

Jotatemp 1000

Product description

This is a three component titanium catalyzed inorganic ceramic copolymer based coating, which cures in ambient conditions. It complies to the generic type inert multipolymeric matrix coating. Designed as a heat resistant coating, and it is resistant to low temperatures down to -196 °C and high temperatures up to 1000 °C continuously, where substrates allow. Can be used as primer or finish coat in atmospheric environments. Suitable for properly prepared carbon steel and ceramic substrates. It can be applied on hot substrates up to 250 °C, **however** be aware that substrate temperature above 200 °C will require further safety considerations due to autoignition risks. Please contact your local Jotun office and refer also to the application guide for more detailed information. It will offer proper corrosion protection at ambient conditions during construction and shut-down periods. The product passes the standard tests used for qualifying coatings preventing corrosion under insulation (CUI).

Typical use

Protective:
Suitable for insulated and non-insulated surfaces of carbon steel and ceramic substrates. For other substrates and temperatures, please contact your local Jotun office. Specially designed for preventing corrosion under insulation (CUI) above 250°C. Can be used in combination with Jotatemp 540 Zinc as primer, providing heat resistance up to 540 °C and lasting corrosion protection. For optimized performance on stainless steel and alloyed steel (P91), we recommend Jotatemp 1000 HT.

Approvals and certificates

Pre-qualified in accordance with NORSOK M-501 in selected systems
Tested in accordance to ISO 19277 Vertical Pipe Test.
Tested in a procedure similar to the cyclic ageing test described in ISO 12944-9 CX.
Tested in accordance to ISO 12944-6 C5 High.
Tested in accordance to ASTM D2485.
Tested in accordance to ASTM D6944.

Internal tests
Internal testing to ISO 3248, 1000 hours at 540 °C on carbon steel.
Internal testing to ISO 3248, 1000 hours at 1000 °C on ceramic substrates.

Additional certificates and approvals may be available on request.

Other variants available

Jotatemp 1000 HT for stainless steel, alloyed steel (P91) and ceramic substrates.

Refer to separate TDS for each variant.

Colours

dark grey, aluminium, aluminium effect (close to RAL 9006)

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	75 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	26 °C
Density	calculated	1.8 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	300 g/l
EU	European Paint Directive 2004/42/CE	Calculated	300 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	300 g/l
Korea	Korea Clean Air Conservation Act	KS M ISO 11890-1	363 g/l
China	GB 30981-2020 Limit of harmful substances of industrial protective coatings	GB/T 23985-2009 8.3	330 g/l

The provided data is typical for factory produced products, subject to slight variation depending on colour.

Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	100	-	150	µm
Wet film thickness	130	-	200	µm
Theoretical spreading rate	7.5	-	5	m²/l

In one-coat systems, dry film thickness up to 200 µm can be applied.

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	St 2 (ISO 8501-1).	Sa 2½ (ISO 8501-1).
Ceramic substrates	The surface shall be clean and dry.	The surface shall be clean and dry.
Coated surfaces	Clean, dry and undamaged compatible coating.	Clean, dry and undamaged compatible coating.

Application

Application methods

The product can be applied by

Spray: Use airless spray.

Brush: Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

Jotatemp 1000 Comp A	110	part(s)
Jotatemp 1000 Comp B	1	part(s)
Jotatemp 1000 Comp C	2.5	part(s)

Mix component A and component C thoroughly before adding component B.

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 7 / Jotun Thinner No. 10

To achieve the best spraying properties the product can be thinned 3-5% by volume before application.

Note: Korean VOC regulation "Korea Clean Air Conservation Act" and its corresponding thinning limit will prevail over recommended thinning volumes.

Guiding data for airless spray

Nozzle tip (inch/1000): 17-23

Pressure at nozzle (minimum): 150 bar/2100 psi

Drying and Curing time

Substrate temperature	10 °C	15 °C	23 °C	40 °C	100 °C
Surface (touch) dry	5.5 h	3 h	2.5 h	1.5 h	15 min
Walk-on-dry	24 h	18 h	6 h	3.5 h	15 min
Dry to over coat, minimum	24 h	18 h	6 h	3.5 h	0 min
Dried/cured for service	4 d	3 d	24 h	18 h	15 min

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

Due to the fast evaporation above 100°C, instant drying is expected.
Drying and curing times are determined under controlled temperatures and relative humidity below 85 %, and at average of the DFT range for the product.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dry to over coat, minimum: The recommended shortest time before the next coat can be applied.

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium.

Induction time and Pot life

Paint temperature	10 °C	15 °C	23 °C	40 °C
Pot life	10 h	8 h	6 h	4 h

Heat resistance

Carbon steel:
Continuous: 540°C

Ceramic substrates:
Continuous: 1000°C

The continuous operational temperature limits are based on the substrate's heat resistant properties.

For design temperatures exceeding the above temperatures, contact Jotun for specific recommendation.

Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jotun for specific system recommendation.

Previous coat:	zinc silicate, inert multipolymeric matrix, itself
Subsequent coat:	silicone acrylic

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Jotatemp 1000 Comp A	4.4	5
Jotatemp 1000 Comp B	0.04	0.25
Jotatemp 1000 Comp C	0.1	1

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Storage temperature not to exceed 40 °C.

Shelf life at 23 °C

Jotatemp 1000 Comp A	12 month(s)
Jotatemp 1000 Comp B	24 month(s)
Jotatemp 1000 Comp C	24 month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

Colour variation

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

This Technical Data Sheet supersedes those previously issued.

The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com