# Jotatemp 250

## Product description

This is a two component glass flake reinforced epoxy composite coating. Designed as a heat resistant coating, and it is resistant to low temperatures down to -196°C and high temperatures up to 250°C on carbon steel. Suitable for insulated and non insulated surfaces. Suitable for properly prepared carbon steel, stainless steel, alloyed steel (P91), galvanized steel and aluminium. It can be applied on hot substrates up to 150°C. Please refer to the application guide for more detailed information. This product may be used as a primer, mid coat or finish coat. 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) and has passed vertical pipe test after being applied on a mechanically prepared and hot substrate.

### Typical use

Protective:
Designed as corrosion protection for surfaces operating at elevated temperatures where extended protection against corrosion is desired. Particularly suited for use under insulation. Suitable for insulated and non insulated surfaces.

### Approvals and certificates

Pre-qualified in accordance with NORSOK M-501 in selected systems
Tested in accordance to AMPP TM21442
Tested in accordance to ISO 19277, including Cryo and Vertical Pipe Test.
Tested in accordance to ISO 19277, optional section 8.2 Vertical Pipe Test, following application on a ground, hot substrate at 150°C.
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 D6944.
Tested in accordance to ISO 3248, 1000 hours at 204 °C on stainless steel (SS304).
Tested in accordance to ISO 3248, 1000 hours at 204 °C on alloyed steel (P91).

**Internal tests**
Internal testing to ISO 3248, 1000 hours at 250 °C on carbon steel.
Internal testing to ISO 3248, 1000 hours at 230 °C on stainless steel (SS304).
Internal testing to ISO 3248, 1000 hours at 230 °C on alloyed steel (P91).

Additional certificates and approvals may be available on request.

### Colours

white, red, light grey, aluminium

Aluminium colour shall not be overcoated.

Other colours available upon request



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# Product data

| Property | Test/Standard | Description |
|---|---|---|
| Solids by volume | ISO 3233 | 70 ± 2 % |
| Gloss level (GU 60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 28 °C |
| Density | calculated | 1.5 kg/l |

| Region | Regulation | Test Standard | VOC Value |
|---|---|---|---|
| US | CARB(SCM)2020 / SCAQMD rule 1113 | US EPA Method 24 | 276 g/l |
| Hong Kong | Air Pollution Control (VOC) Regulation | US EPA Method 24 | 276 g/l |
| EU | European Paint Directive 2004/42/CE | Calculated | 311 g/l |
| EU IED | Industrial Emission Directive 2010/75/EU | Calculated | 311 g/l |
| Korea | Korea Clean Air Conservation Act | KS M ISO 11890-1 | 303 g/l |
| China | GB 30981-2020 Limit of harmful substances of industrial protective coatings | GB/T 23985-2009 8.3 | 238 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 | 140 | - | 200 | µm |
| Wet film thickness | 200 | - | 300 | µm |
| Theoretical spreading rate | 5 | - | 3.5 | m²/l |

# Surface preparation

### Surface preparation summary table



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| Substrate | Surface preparation | |
|---|---|---|
| | Minimum | Recommended |
| Carbon steel | St 2 (ISO 8501-1) if temperature does not exceed 230 °C | Sa 2½ (ISO 8501-1) |
| Stainless steel | The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface. | Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile. |
| Aluminium | The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface. | Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile. |
| Galvanised steel | The surface shall be clean, dry and appear with a rough and dull profile. | Sweep blast-cleaning using non-metallic abrasive leaving a clean, rough and even pattern. |
| Shop primed steel | Dry, clean and approved inorganic zinc shopprimer. | Sa 2½ (ISO 8501-1) |
| 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 250 Comp A | 5 part(s) |
| Jotatemp 250 Comp B | 1 part(s) |

## Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17 / Jotun Thinner No. 23

Thinning max.: 10 %

Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.
**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): 19-21



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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 | 12 h | 6 h | 2.5 h | 1.5 h | 20 min |
| Walk-on-dry | 24 h | 13 h | 7 h | 2.5 h | 20 min |
| Dry to over coat, minimum | 13 h | 6 h | 2.5 h | 1.5 h | 0 min |
| Dried/cured for service | 25 d | 21 d | 18 d | 3 d | 1 d |

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 | 23 °C |
|---|---|
| Induction time | 20 min |
| Pot life | 2 h |

Reduced at higher temperatures.

## Heat resistance

Carbon steel:
Continuous: 250°C
Peak: 300°C

Stainless steel:
Continuous: 230°C

Alloyed steel:
Continuous: 230°C

Galvanised steel:
Continuous:204°C

Aluminium
Continuous: 204°C

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



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Aesthetic properties may be affected, with possible discolouration occurring at elevated temperatures. In addition, epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering. These are expected phenomena in the outermost surface.

## 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: | inorganic zinc ethyl silicate, itself |
| Subsequent coat: | glass flake reinforced epoxy composite, silicone acrylic * |

* Maximum heat resistance is 230 °C (446 °F)

## Packaging (typical)

| | Volume (litres) | Size of containers (litres) |
|---|---|---|
| Jotatemp 250 Comp A | 4.17/15 | 5/20 |
| Jotatemp 250 Comp B | 0.83/3 | 1/3 |

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.

### Shelf life at 23 °C

| | |
|---|---|
| Jotatemp 250 Comp A | 24 month(s) |
| Jotatemp 250 Comp B | 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 applicator and operator 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 should 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



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Please observe the precautionary notices displayed in 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 sought medical attention 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 data given 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.



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