

Jotatemp 210

Product description

This is a two component, polyamide cured phenolic/novolac epoxy coating. It is a heat resistant coating that offers corrosion protection in temperatures ranging from -196 °C (-321 °F) cryogenic and up to 210 °C (410 °F), continuous and cyclic conditions. For peak operational temperatures up to 230 °C (446 °F), please contact your local Jotun office. It is suitable for non-insulated and insulated surfaces, where wet surroundings can give a risk of corrosion under insulation (CUI). This product is fast curing and can also be applied during winter season at low temperatures. This product may be used as a primer, mid coat or finish coat in atmospheric environments. Suitable for properly prepared carbon steel, galvanised steel and stainless steel substrates. For other substrates please contact your local Jotun office.

Typical use

Protective:

Typical assets include offshore structures, refineries, petrochemicals and power plants. Typical usage areas include high temperature piping, process vessels, valves and other equipment, for both onshore and offshore installations.

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 12944-6 C4 High.

Additional certificates and approvals may be available on request.

Colours

grey, red, aluminium

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	60 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	26 °C
Density	calculated	1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	US EPA Method 24	360 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	US EPA Method 24	360 g/l
EU	European Paint Directive 2004/42/CE	Calculated	399 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	399 g/l
Korea	Korea Clean Air Conservation Act	KS M ISO 11890-1	368 g/l
China	GB 30981-2020 Limit of harmful substances of industrial protective coatings	GB/T 23985-2009 8.3	340 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 - 200	µm
Wet film thickness	170 - 330	µm
Theoretical spreading rate	6 - 3	m ² /l

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	St 2 (ISO 8501-1)	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.
Galvanised steel	The surface should be clean, dry and free of zinc salts.	Sweep blast-cleaning using non-metallic abrasive leaving a clean, rough and even pattern.
Shop primed steel	Dry, clean and intact shop primer.	Sa 2½ (ISO 8501-1)
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation.

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.
Roller:	May be used for small areas. Not recommended for first primer coat. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

Jotatemp 210 Comp A	4 part(s)
Jotatemp 210 Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner:	Jotun Thinner No. 23 / Jotun Thinner No. 17
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Guiding data for airless spray

Nozzle tip (inch/1000):	19-31
Pressure at nozzle (minimum):	150 bar/2100 psi

Drying and Curing time

Substrate temperature	-10 °C	0 °C	5 °C	10 °C	23 °C	40 °C	70 °C
Surface (touch) dry	36 h	10 h	6 h	4 h	2 h	1 h	30 min
Walk-on-dry		24 h	19 h	10 h	3 h	2 h	1 h
Dry to over coat, minimum		18 h	10 h	5 h	3 h	2 h	1 h
Dried/cured for service		14 d	12 d	10 d	7 d	3 d	2 d

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

Drying and curing times are determined under controlled temperatures and relative humidity below 85 %, and at average of the DFT range for the product.

Jotatemp 210 may be applied at temperatures down to a minimum of -10 °C. Be aware that this will result in extended drying, curing and overcoating times, and it will require temperatures above 0 °C in order to achieve sufficient strength for walk-on and service.

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
Pot life	8 h

Heat resistance

Carbon steel:
Continuous: 210 °C
Peak: 230 °C

Stainless steel SS304:
Continuous: 210 °C

Alloy steel P91:
Continuous: 210 °C

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: itself only
Subsequent coat: itself, silicone acrylic

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Jotatemp 210 Comp A	16	20
Jotatemp 210 Comp B	4	5

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 210 Comp A	24 month(s)
Jotatemp 210 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 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 antifouling 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.