

Tankguard Type I

Product description

This is a two component polyamine cured phenolic/novolac epoxy coating. It has a high resistance to most sour crude oils and a wide range of chemicals and solvents. Can be used as primer, mid coat or finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel substrates.

Typical use

Protective:
Specially designed to meet crucial requirements of the petroleum industry.

Approvals and certificates

Petrobras N-2912 norm for Type I Novolac Epoxy Paint
Additional certificates and approvals may be available on request.

Colors

Munsell 5G8/4, Munsell N6.5, Munsell N9.5

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	81 ± 2 %
Gloss level (GU 60 °)	ISO 2813	semi gloss (35-70)
Flash point	ISO 3679 Method 1	82 °F (28 °C)
Density	calculated	1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	US EPA Method 24	1.42 lbs/gal

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

Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	6 mils (150 µm)	12 mils (300 µm)
Wet film thickness	7 mils (185 µm)	15 mils (370 µm)
Theoretical spreading rate	220 ft ² /gal (5.4 m ² /l)	110 ft ² /gal (2.7 m ² /l)

Surface preparation

Note: The water jetting shall only be used for maintenance services. For new constructions, the water jetting is permitted only if combined with abrasives.

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
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:	Roller application only to be used for scallops, ratholes, small pipes etc.

Product mixing ratio (by volume)

Tankguard Type I Comp A	3 part(s)
Tankguard Type I Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 23

Guiding data for airless spray

Nozzle tip (inch/1000): 17-21
Pressure at nozzle (minimum): 150 bar/2100 psi

Drying and Curing time

Temperatures:
-10°C = 14°F / -5°C = 23°F / 0°C = 32°F / 5°C = 41°F / 10°C = 50°F / 15°C = 59°F / 23°C = 73°F / 35°C = 95°F / 40°C = 104°F / 100°C = 212°F

Substrate temperature	10 °C	15 °C	23 °C	40 °C
Surface (touch) dry	16 h	6 h	4 h	2 h
Walk-on-dry	24 h	10 h	6 h	3 h
Dried to over coat, minimum	48 h	30 h	20 h	10 h
Dried/cured for service	14 d	10 d	5 d	3 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.

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

Temperatures: 15°C = 59°F / 23°C = 73°F

Paint temperature	23 °C
Induction time	10 min
Pot life	1.5 h

Reduced at higher temperatures

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	140 °C	-
Immersed, sea water	150 °C	-
Immersed, crude oil	80 °C	90 °C

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

Note that the coating will be resistant to various immersion temperatures depending on the specific chemical and whether immersion is constant or intermittent. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

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 only

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Tankguard Type I Comp A	15	20
Tankguard Type I Comp B	5	5

The volume stated is for factory made colors. 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 73°F (23 °C)

Tankguard Type I Comp A	12 month(s)
Tankguard Type I Comp B	12 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.

Note

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.

Color variation

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

Color and gloss retention on topcoats/finish coats may vary depending on type of color, 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.