Technical Data Sheet

Tankguard SF

Product description

This is a two component solvent free amine cured phenolic/novolac epoxy coating. It is a specially designed tank lining with very good chemical resistance. Can be used as primer, mid coat or finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel, galvanised steel, stainless steel and concrete substrates.

Typical use

Protective:
Designed as an internal lining for offshore, onshore and buried tanks and pipes such as chemical storage, waste water, grey water, process water, concrete bund, fire service lines and drilling mud tanks. Meets the requirement of API 652 guideline as a thick film reinforced lining. Refer to Protective Resistance Guide.

Colours

buff, light grey, light red, white

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	100 %
Gloss level (GU 60 °)	ISO 2813	gloss (70-85)
Flash point	ISO 3679 Method 1	100 °C
Density	calculated	1.5 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	71 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	71 g/l
EU	European Paint Directive 2004/42/CE	Calculated	71 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	71 g/l
Korea	Korea Clean Air Conservation Act	Calculated	71 g/l
China	GB 30981-2020 Limit of harmful substances of industrial protective coatings	GB/T 34682-2017 8.3	23 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.

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

Film thickness per coat

Typical recommended specification range

Dry film thickness	150	-	500	µm
Wet film thickness	150	-	500	µm
Theoretical spreading rate	6.7	-	2	m²/l

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	**Recommended**
Carbon steel	Sa 2½ (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 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.
Concrete	Dry abrasive blast cleaning to SSPC-SP 13/NACE No. 6.	Dry abrasive blast cleaning to SSPC-SP 13/NACE No. 6.
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.

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Product mixing ratio (by volume)

Tankguard SF Comp A	2 part(s)
Tankguard SF Comp B	1 part(s)

Thinner/Cleaning solvent

Do not add thinner.

Cleaning solvent: Jotun Thinner No. 17

When thinners are used as a cleaning solvent, the use must be in accordance with prevailing local regulations.

Guiding data for airless spray

Nozzle tip (inch/1000):	19-25
Pressure at nozzle (minimum):	175 bar/2500 psi

Drying and Curing time

Substrate temperature	10 °C	15 °C	23 °C	30 °C	40 °C
Surface (touch) dry	15 h	12 h	6 h	5 h	1.5 h
Walk-on-dry	30 h	24 h	12 h	9 h	4 h
Dry to over coat, minimum	30 h	24 h	12 h	7 h	4 h
Dried/cured for service	15 d	10 d	3 d	2 d	1 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 60 %, and at average of the DFT range for the product.
For all temperatures the maximum acceptable Relative Humidity is 60 %.

For wet-on-wet application 2 x 200 µm is recommended. The time recommended before application of subsequent coat is between 20 minutes and 4 hours. As long as this is done wet-on-wet, the relative humidity can be accepted higher than 60 % (maximum 85 %), but there may be a risk of visual effect (white/dull areas) in the surface of the last coat.

For storage of crude oil and clean petroleum products the tanks can be returned to service 48 hours after application of the final coat, when applied at temperatures 23 °C and above.
For a list of what constitutes clean petroleum products please refer to Jotun Product Resistance Guide.

For other less aggressive chemicals early immersion time can be possible. For further advice please contact your local Jotun office.

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.

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Induction time and Pot life

Paint temperature	23 °C
Induction time	10 min
Pot life	1 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	120 °C	140 °C
Immersed, sea water	80 °C	90 °C
Immersed, crude oil	140 °C	150 °C

Further resistance information can be found in Protective Product Resistance List available on Jotun's website, or contact your local Jotun office.

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: phenolic/novolac epoxy

Subsequent coat: phenolic/novolac epoxy

Tankguard Holding Primer can be used as a temporary protection and is fully compatible with the tank coating system.

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Tankguard SF Comp A	10	20
Tankguard SF Comp B	5	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.

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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

Tankguard SF Comp A	12 month(s)
Tankguard SF 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.

Environmental Documentation

This product can contribute to Green Building Standard credits. Please refer to Jotun.com for more information or contact your local Jotun representative.

Environmental Product Declaration (EPD) is available at www.epd-norge.no

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

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

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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.