Jotatherm TB550

Product description

This is a two component solvent free amine cured syntactic epoxy insulant. Provides thermal insulation and corrosion protection. This product is suitable for temperature scenarios of -40 °C to 150 °C. Can be used as an independent solution, or in combination with Jotachar epoxy passive fire protection materials.

Typical use

Typically used in the oil, gas and energy industries. Suitable for both offshore and onshore environments.

Cryogenic spill resistance:
Used only as a system component when installing Jotatherm TB550 to protect steel substrates from embrittlement due to cryogenic release such as LNG spills.
For cryogenic spill resistance applications Jotatherm CSP1 Scrim must be installed as detailed in the Jotatherm TB550 Application Guide (AG).

Fire protection:
Can be used in combination with Jotachar epoxy passive fire protection to reduce substrate temperature to less than 95 °C, or to protect Jotachar against external radiant heat sources.

Thermal insulation:
Can be used to reduce substrate temperatures to provide personnel protection. Provides thermal insulation and prevents corrosion under insulation.

For a detailed coating specification please contact your local Jotun representative.

Approvals and certificates

ISO 20088-1 Cryogenic Spillage Resistance
Pre-qualified in accordance with NORSOK M-501 in selected systems
ISO 20340 Cyclic Durability Testing
ASTM C177 – Thermal Conductivity
ASTM E228 - Thermal Expansion
ASTM E1269 - Specific Heat Capacity

Independently fire tested in combination with Jotachar to:
- ISO 834-3/BS476 Hydrocarbon Pool Fire Test for structures
- ISO 22899 Jet Fire Resistance

Additional certificates and approvals may be available on request.

Colours

buff

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Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	100 %
Flash point	ISO 3679 Method 1	100 °C

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	0 g/l
Korea	Korea Clean Air Conservation Act	Calculated	0 g/l

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

Applied density (ISO 1183:1987 Method A): 0.57 g/cm³

Film thickness per coat

Typical recommended specification range:

Dry film thickness:
2 - 40 mm (dependent upon the intended usage and project specific requirements)

Spray application:
Typical maximum thickness achievable per coat is 5 mm

Manual application:
Typical maximum thickness achievable per coat is 25+ mm

Film build is dependent upon steel configuration, geometry, ambient conditions, pump type and set up as well as primer used.
Absolute maximum DFT is the thickness at which the system can be applied without sagging or slumping.

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

Application

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Application methods

The product can be applied by

Spray:	Use two component heated plural spray. Refer to the Application Guide (AG) for additional information.
	Note: All pumps used for the application of this product must be approved by Jotun.
Trowel:	Refer to the Application Guide (AG) for additional information.

Scrim installation: Where Jotatherm TB550 is used for cryogenic protection, there may be a requirement to install Jotatherm CSP1 scrim. Refer to Application methods for additional information.

Product mixing ratio (by weight)

Jotatherm TB550 Comp A	2.4 part(s)
Jotatherm TB550 Comp B	1 part(s)

Individual components must have been stored for minimum 12 hours at 25 to 30 °C (77 to 86 °F). Stir/mix thoroughly with a power agitator before application.

Thinner/Cleaning solvent

Do not add thinner.

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

For rolling, use Jotun Thinner No. 7 or 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):	27-35
Pressure at nozzle (minimum):	200 bar/2900 psi

Drying and Curing time

Substrate temperature	5 °C	15 °C	23 °C	40 °C
Surface (touch) dry	6 h	3 h	1 h	1 h
Walk-on-dry	36 h	12 h	6 h	3 h
Dry to over coat, minimum	6 h	3 h	1 h	1 h
Dried/cured for service	36 h	12 h	6 h	3 h

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.

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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	15 °C	23 °C
Pot life	40 min	25 min

The given figures are for trowel and roller workability.
Working pot life is not applicable for plural airless spray application as the material is mixed at the spray gun during application. For manual application, mixed material should be applied with minimum delay. Due to exothermic reaction, the larger the volume of mixed material, the shorter the pot life will be.

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	150 °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: epoxy, zinc epoxy, epoxy zinc phosphate, epoxy mastic

Subsequent coat: polyurethane, polysiloxane, epoxy, epoxy Passive Fire Protection

Primers used under this product must be approved by Jotun. For the list of approved primers, please consult Jotun.

See Application Guide.

Packaging (typical)

	Weight	Size of containers (litres)
Jotatherm TB550 Comp A	8.8 kg	20
Jotatherm TB550 Comp B	7.3 kg	20

One unit of Jotatherm TB550 is supplied as 2 x 8.8 kg of Comp A and 1 x 7.3 kg of Comp B

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.

• General storage 1 ºC (34 °F) minimum and 35 ºC (95 °F) maximum.
• Pre-heating for plural component spray application at 40-50 ºC (113-122°F) for minimum 12 hours prior to use.
• For manual application at ambient temperature below 20 °C (68°F), it is recommended to pre-heat the material up to 20-35 °C (68-95°F) for minimum 12 hours prior to use.

Protect from frost.

Shelf life at 23 °C

Jotatherm TB550 Comp A	18 month(s)
Jotatherm TB550 Comp B	18 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

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.

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

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