

Solvalitt HTI

Product description

This is a one component physically drying silicone coating. It is a temperature indicating and heat resistant product. Can be used as primer, mid coat or finish coat in atmospheric environments. Suitable for properly prepared carbon steel, galvanized steel, stainless steel and aluminum substrates.

Typical use

Protective:

Specially designed as a temperature indicating coating. Recommended in combination with an inorganic zinc silicate coating as primer, providing heat resistance up to 750 °F (400 °C) and long term corrosion protection. A perceptible change in colour marks the area where local over-heating has occurred. Color retention is excellent up to the threshold temperature, above which an irreversible reaction resulting in progressive discoloration occurs, at a rate determined by time and temperature. Up to 500 °F (260 °C) the colour is dark green. At 599 °F (315 °C) the colour changes to light green after 18 hours. At 752 °F (400 °C) the colour changes to white after 6 hours.

Colors

green

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	44 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	79 °F (26 °C)
Density	calculated	1.2 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	3.99 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	1 mils (25 µm)	1.6 mils (40 µm)
Wet film thickness	2.2 mils (55 µm)	4 mils (90 µm)
Theoretical spreading rate	720 ft ² /gal (17.6 m ² /l)	450 ft ² /gal (11 m ² /l)

Surface preparation

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
Stainless steel	Cleanliness corresponding to Sa 2½ (8501-1), Surface profile Fine G (ISO 8503-2) or NACE No. 2 / SSPC SP-10, Surface profile 1.7 mils	Cleanliness corresponding to Sa 2½ (8501-1), Surface profile Fine G (ISO 8503-2) or NACE No. 2 / SSPC SP-10, Surface profile 1.7 mils
Aluminum	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.	Dry abrasive blast cleaning to NACE No. 6 / SSPC-SP 13.
Galvanized 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.
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 air spray or 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

Single pack

Thinner/Cleaning solvent

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

Guiding data for airless spray

Nozzle tip (inch/1000): 15-17
Pressure at nozzle (minimum): 100 bar/1450 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	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	4 h	3 h	2 h	1 h
Walk-on-dry	44 h	36 h	24 h	14 h
Dried to over coat, minimum	48 h	36 h	24 h	14 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.

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.

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	400 °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: zinc silicate, silicone acrylic, multipolymeric matrix
Subsequent coat: silicone acrylic

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Solvalitt HTI	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)

Solvalitt HTI 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.

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.
