

Solvalitt

Product description

This is a one component physically drying silicone acrylic coating. It is heat resistant up to 600 °C. Can be used as primer, mid coat or finish coat in atmospheric environments. Suitable for properly prepared carbon steel, galvanised steel, stainless steel and aluminium substrates.

Typical use

Protective:

Designed as heat resistant coating. Suitable for insulated and non insulated surfaces. Recommended in combination with an inorganic zinc silicate coating as primer, providing heat resistance up to 400 °C and long corrosion protection. For shorter periods, such a combined system can handle peak temperatures up to 540 °C.

Other variants available

Solvalitt Alu

Refer to separate TDS for each variant.

Colours

black, green, grey, white

Product data

| Property | Test/Standard | Description |
|--------------------------------|-------------------|-------------|
| Solids by volume | ISO 3233 | 43 ± 2 % |
| Gloss level (60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 26 °C |
| VOC-USA / VOC-Hong Kong | EPA Method 24 | 520 g/l |
| VOC-Solvent Emission Directive | SED (1999/13/EC) | 409 g/kg |

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

Gloss level: According to Jotun Performance Coatings' definition.

Note: Heat resistant topcoats can be tinted in a range of colours. However, due to its pigmentation certain colours will appear less gloss and colour stable than others.

Recommended film thickness per coat

| Film thickness and spreading rate | Dry film thickness | Wet film thickness | Theoretical spreading rate (m ² /l) |
|-----------------------------------|--------------------|--------------------|--|
| | (µm) | (µm) | |
| Minimum | 20 | 50 | 21 |
| Maximum | 30 | 70 | 14 |
| Typical | 20 | 50 | 21 |

Surface preparation

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation summary table

| Substrate | Surface preparation | |
|------------------|--|---|
| | Minimum | Recommended |
| Carbon steel | Sa 2½ (ISO 8501-1) | Sa 2½ (ISO 8501-1) |
| Stainless steel | Cleanliness and surface profile corresponding to Sa 2½, Fine G (ISO 8503-2) | Cleanliness and surface profile corresponding to Sa 2½, Fine G (ISO 8503-2) |
| Aluminium | 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 and to remove all polish from the surface. | Dry abrasive "Brush Blast" cleaning to NACE No. 4/SSPC-SP 7 |
| Galvanised steel | The surface shall be clean, dry and appear with a rough and dull profile. | Light brush blasting using non-metallic abrasive leaving a clean, rough and even pattern. |
| Coated surfaces | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1) | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1) |

Application

Application methods

The product can be applied by

- Spray: Use airless spray or conventional 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)

Single pack

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 7

Guiding data for airless spray

Nozzle tip (inch/1000): 15-17
Pressure at nozzle (minimum): 100 bar/1450 psi

Drying and Curing time

| Substrate temperature | 5 °C | 10 °C | 23 °C | 40 °C |
|---------------------------|------|--------|--------|--------|
| Surface (touch) dry | 1 h | 45 min | 30 min | 15 min |
| Walk-on-dry | 4 h | 3 h | 2 h | 1.5 h |
| Dry to over coat, minimum | 8 h | 5 h | 4 h | 3 h |

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

Freshly applied Solvalitt film may have slightly reduced mechanical properties. This effect can however be overcome by heating the paint system to 200 °C for approx. 1 hour.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness. Dry sand sprinkled on the surface can be brushed off without sticking to or causing damage to the surface.

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dried to over coat, minimum: The shortest time allowed before the next coat can be applied.

Heat resistance

| | Temperature |
|------------------|-------------|
| | Continuous |
| Dry, atmospheric | 600 °C |

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

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 (litres) | Size of containers (litres) |
|-----------|--------------------|--------------------------------|
| Solvalitt | 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.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, 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

Solvalitt 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

Products primarily meant for use as primers and antifoulings may have slight color variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering.

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.
