

Jotaguard 660

Product description

This is a two component polyamine cured pure epoxy coating. It is a fast drying, surface tolerant, very abrasion and impact resistant, high solids, high build product. Specially designed as a high performance coating for cargo holds. Can be used as primer or finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel and shop primed steel substrates. It can be applied at sub zero surface temperatures. Discoloration may be observed after deballasting. This will however not affect the protective properties.

Typical use

Marine:

Specially designed for long term performance in cargo holds and on hatch coamings. The quick curing of the coating makes it suitable for short waiting time before taking first cargo. FDA compliant with grain certificate. Can be used for cargo ballast holds.

Approvals and certificates

In compliance with Federal Drug Authority, USA, FDA Title 21, Part 175.300, approved for exposure to dry foods Grain, Newcastle Occupational Health

Additional certificates and approvals may be available on request.

Colours

grey, red, buff

Product data

| Property | Test/Standard | Description |
|-----------------------|-------------------|-------------|
| Solids by volume | ISO 3233 | 72 ± 2 % |
| Gloss level (GU 60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 31 °C |
| Density | calculated | 1.37 kg/l |

| Region | Regulation | Test Standard | VOC Value |
|-----------|---|---------------------|-----------|
| US | CARB(SCM)2020 / SCAQMD rule 1113 | Calculated | 244 g/l |
| Hong Kong | Air Pollution Control (VOC) Regulation | Calculated | 244 g/l |
| EU | European Paint Directive 2004/42/CE | Calculated | 244 g/l |
| EU IED | Industrial Emission Directive 2010/75/EU | Calculated | 244 g/l |
| Korea | Korea Clean Air Conservation Act | Calculated | 284 g/l |
| China | GB 30981-2020 Limit of harmful substances of industrial protective coatings | GB/T 23985-2009 8.3 | 236 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.

Film thickness per coat

Typical recommended specification range

| | |
|----------------------------|-----------------------------|
| Dry film thickness | 100 - 250 µm |
| Wet film thickness | 140 - 345 µm |
| Theoretical spreading rate | 7.2 - 2.9 m ² /l |

Surface preparation

Refer to the Application Guide (AG) for additional information.

Surface preparation summary table

| Substrate | Surface preparation | |
|-------------------|---|---|
| | Minimum | Recommended |
| Carbon steel | St 2 (ISO 8501-1) | Sa 2½ (ISO 8501-1) |
| Shop primed steel | Clean, dry and undamaged approved shop primer | Sa 2 (ISO 8501-1) |
| 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 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 ratio (by volume)

| | |
|----------------------|-----------|
| Jotaguard 660 Comp A | 3 part(s) |
| Jotaguard 660 Comp B | 1 part(s) |

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

Guiding data for airless spray

| | |
|-------------------------------|------------------|
| Nozzle tip (inch/1000): | 19-25 |
| Pressure at nozzle (minimum): | 200 bar/2900 psi |

Drying and Curing time

| Substrate temperature | -5 °C | 0 °C | 10 °C | 23 °C | 40 °C |
|---------------------------|-------|------|-------|-------|-------|
| Surface (touch) dry | 22 h | 14 h | 5 h | 2.5 h | 1 h |
| Walk-on-dry | 48 h | 24 h | 10 h | 5 h | 2 h |
| Dry to over coat, minimum | 48 h | 24 h | 10 h | 5 h | 2 h |
| Dried/cured for service | | 32 d | 14 d | 7 d | 4 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.

NB: For this product the times for dried/cured for service is the minimum time before loading of the first cargo. 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.

Induction time and Pot life

| Paint temperature | 23 °C |
|-------------------|-------|
| Pot life | 1 h |

Heat resistance

| | Temperature | |
|---------------------|-------------|--------|
| | Continuous | Peak |
| Dry, atmospheric | 120 °C | 120 °C |
| Immersed, sea water | 50 °C | 60 °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: inorganic zinc silicate shop primer, epoxy

Subsequent coat: epoxy, epoxy mastic

Packaging (typical)

| | Volume (litres) | Size of containers (litres) |
|----------------------|--------------------|--------------------------------|
| Jotaguard 660 Comp A | 15 | 20 |
| Jotaguard 660 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.

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

| | |
|----------------------|-------------|
| Jotaguard 660 Comp A | 24 month(s) |
| Jotaguard 660 Comp B | 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

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 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.
