

Jotaguard 690

Product description

This is a two component polyamine cured pure epoxy coating. It is a fast drying, superb mechanical strength, high solids, high build product. Specially designed as a premium coating for cargo holds where long term performance and long repair intervals are required. To be used as primer as a part of a complete system 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 gives the industry leading, shortest 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

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	75 ± 2 %
Gloss level (GU 60 °)	ISO 2813	semi gloss (35-70)
Flash point	ISO 3679 Method 1	33 °C
Density	calculated	1,59 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested)	210 g/l
VOC-EU	IED (2010/75/EU) (calculated)	219 g/l
VOC-China	GB/T 23985-2009 (ISO 11890-1) (tested)	205 g/l

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

All data is valid for mixed paint.

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	135 - 335	µm
Theoretical spreading rate	7,5 - 3	m ² /l

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)
Shop primed steel	Clean, dry and undamaged shop primer (ISO 12944-4 6.1)	Sa 2 (ISO 8501-1)
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.
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 690 Comp A	3 part(s)
Jotaguard 690 / 690 S 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	20 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		28 d	8 d	4 d	3 d

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 shortest time allowed 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 690 Comp A	15	20
Jotaguard 690 / 690 S 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, 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 690 Comp A	24 month(s)
Jotaguard 690 / 690 S 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 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.
