Hardtop Optima Alu

Product description

This is a two component chemically curing polysiloxane resin based coating. The product does not contain isocyanates. It has an aluminium sheen finish with excellent gloss retention. It is a high solids, aluminium pigmented product. The product is fully recoatable at any stage of curing. The product has good application properties with low dry spray. To be used as topcoat in atmospheric environments.

Typical use

Protective:
Recommended for offshore environments, refineries, power plants, bridges and buildings.

Other variants available

Hardtop Optima

Refer to separate TDS for each variant.

Colours

RAL 9006

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	74 ± 2 %
Gloss level (GU 60 °)	ISO 2813	semi gloss (35-70)
Flash point	ISO 3679 Method 1	28 °C
Density	calculated	1,2 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested)	232 g/l
VOC-EU	IED (2010/75/EU) (calculated)	158 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.

Technology limitations make exact colour match of metallic finishes not possible. Variations depending on differences in application methods, DFT, temperature, humidity and substrate must be expected.

Film thickness per coat

Typical recommended specification range

Dry film thickness	65	-	100	µm
Wet film thickness	90	-	135	µm
Theoretical spreading rate	11,4	-	7,4	m²/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
Coated surfaces	Clean, dry and undamaged compatible coating (ISO 12944-5 6.1)	Clean, dry and undamaged compatible coating (ISO 12944-5 6.1)

Application

Application methods

The product can be applied by

Spray: Use air spray or airless spray.

Varying metallic effects may occur with different application methods or techniques.

Product mixing ratio (by volume)

Hardtop Optima Alu Comp A	4 part(s)
Hardtop Optima Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 7 / Jotun Thinner No. 17

Guiding data for airless spray

Nozzle tip (inch/1000): 13-15

Pressure at nozzle (minimum): 150 bar/2100 psi

Guiding data for air spray

Nozzle tip (inch/1000): 11-19 (HVLP)
1.1-1.9 mm (pressure pot)

Pressure at nozzle (minimum): 2.1 bar/30 psi (HVLP)
2.1 bar/30 psi (pressure pot)

Drying and Curing time

Substrate temperature	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	10 h	5 h	3 h	2 h
Walk-on-dry	12 h	7 h	4 h	3 h
Dry to over coat, minimum	12 h	7 h	4 h	3 h
Dry to over coat, maximum, atmospheric	48 h	36 h	24 h	12 h
Dried/cured for service	15 d	10 d	5 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.

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.

Dry to over coat, maximum, atmospheric: The longest 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	6 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	120 °C	140 °C

Peak temperature duration max. 1 hour.

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: epoxy, zinc silicate

Subsequent coat: polysiloxane

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Hardtop Optima Alu Comp A	4/16	5/20
Hardtop Optima Comp B	1/4	1/5

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

Hardtop Optima Alu Comp A	48 month(s)
Hardtop Optima 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.

This Technical Data Sheet supersedes those previously issued.

The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com