

Hardtop Design Metallics

Product description

This is a two component chemically curing aliphatic acrylic polyurethane coating. It has a semi-gloss finish with metallic sheen and very good gloss retention. It is a high solids product. This product contains no solvents on the Hazardous Air Pollutants (HAPs) list. Minor amounts of such solvents may come in through tinting of some colours. To be used as topcoat in atmospheric environments.

Typical use

Protective:
Recommended for bridges and buildings. Suitable for a wide range of industrial structures.

Colours

selected range of metallic colours according to colour card

Note: The colour of the previous coat will influence the appearance and colour of Hardtop Design Metallics.

To achieve the colours in the colour card the following colours are needed for the previous coat:

Neutral, Ridge, Wave: **Light grey or Buff**
Dawn, Curve, Glow, Radiant, Vivid, Ignite: **Buff**
Rise: **RAL 1013**

If any other colour than specified above is used on previous coats, the colour of Hardtop Design Metallics may be different than in the colour card.

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	63 ± 2 %
Gloss level (GU 60 °)	ISO 2813	semi gloss (40-60)
Flash point	ISO 3679 Method 1	28 °C
Density	calculated	1.1 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	333 g/l
VOC-EU	IED (2010/75/EU) (theoretical)	365 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	50 - 80	µm
Wet film thickness	80 - 130	µm
Theoretical spreading rate	12 - 7.5	m ² /l

Bright colours may need film thickness in the high end of the recommended specification range to achieve opacity.

Spray application:

Two wet-on-wet coats at 30 µm DFT each are recommended. WFT values are for unthinned product. To achieve the specified DFT after thinning it is necessary to increase the WFT with 20-25 %.

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	<p>New Jotun epoxy primer: Clean, dry and undamaged compatible coating. Remove any contamination that could interfere with the intercoat adhesion.</p> <p>Cured Jotun epoxy primer or polyurethane topcoat: Exceeding maximum recoat intervals will require cleaning/abrading by orbital sanding or hand sanding with aluminium oxide or silicon carbide sand paper with grit P240-P320, and/or application of additional coats, depending on condition.</p>	<p>New Jotun epoxy primer: Clean, dry and undamaged compatible coating. Remove any contamination that could interfere with the intercoat adhesion.</p> <p>Cured Jotun epoxy primer or polyurethane topcoat: Exceeding maximum recoat intervals will require cleaning/abrading by orbital sanding or hand sanding with aluminium oxide or silicon carbide sand paper with grit P240-P320, and/or application of additional coats, depending on condition.</p>

Application

Application methods

The product can be applied by

Spray:	Use air spray. Airless spraying is not recommended.
Brush:	Not recommended.
Roller:	Not recommended.

Product mixing ratio (by volume)

Hardtop Design Metallics Comp A	4 part(s)
Hardtop Design Metallics Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 26

Thinning is required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.

Guiding data for air spray

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

Drying and Curing time

Substrate temperature	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	2.5 h	2.5 h	2 h	1 h
Walk-on-dry	48 h	24 h	9 h	2.5 h
Dry to over coat, minimum	18 h	10 h	4 h	3 h
Dried/cured for service	14 d	10 d	5 d	3 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.

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	2 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	90 °C	120 °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 epoxy, epoxy mastic, polyurethane
Subsequent coat: polyurethane

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Hardtop Design Metallics Comp A	4	5
Hardtop Design Metallics Comp B	1	1

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.

Storage temperature not to exceed 25 °C.

Shelf life at 23 °C

Hardtop Design Metallics Comp A	24 month(s)
Hardtop Design Metallics Comp B	48 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.
