## **Technical Data Sheet**



## **Hardtop HB**

## **Product description**

This is a two component chemically curing aliphatic acrylic polyurethane coating. It has a matt finish with very good gloss retention. It is a high build product. To be used as topcoat in atmospheric environments.

#### **Typical use**

Marine:

Recommended for topside, deck and superstructure.

Protective:

Recommended for refineries, power plants, bridges and buildings. Suitable for a wide range of industrial structures.

#### **Colours**

selected range of colours tinted over Multicolor Industry tinting system (MCI)

## **Product data**

Property	Test/Standard	Description
Solids by volume	ISO 3233	50 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	26 °C
Density	calculated	1.2 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	459 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	459 g/l
EU	European Paint Directive 2004/42/CE	Calculated	459 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	459 g/l
Korea	Korea Clean Air Conservation Act	Calculated	459 g/l
China	GB 30981-2020 Limit of harmful substances of industrial protective coating	GB/T 23985-2009 8.3 s	420 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.

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# Film thickness per coat

#### Typical recommended specification range

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

## **Surface preparation**

#### Surface preparation summary table

	Surface preparation			
Substrate	Minimum	Recommended		
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.

### **Product mixing ratio (by volume)**

Hardtop HB Comp A 4 part(s) Hardtop AS/HB Comp B 1 part(s)

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#### Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 10

#### **Guiding data for airless spray**

Nozzle tip (inch/1000): 13-19

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

# **Drying and Curing time**

Substrate temperature	0 °C	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	16 h	8 h	4 h	2 h	1 h
Walk-on-dry	50 h	35 h	20 h	10 h	5 h
Dry to over coat, minimum	30 h	21 h	12 h	6 h	3 h
Dried/cured for service	20 d	15 d	10 d	5 d	2 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	4 h

## **Heat resistance**

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

Peak temperature duration max. 1 hour.

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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	Size of containers	
	(litres)	(litres)	
Hardtop HB Comp A	16	20	
Hardtop AS/HB Comp B	4	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

Hardtop HB Comp A 48 month(s)
Hardtop AS/HB 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.

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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

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## **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.