Technical Data Sheet

Hardtop One

Product description

This is a one component moisture curing acrylic polysiloxane resin based coating. The product does not contain isocyanates, neither does it generate di-isocyanates during hotwork / welding or fire. It has excellent gloss and colour retention. It is a high solids product. Specially designed for application with brush and roller. The product has good application properties with low dry spray. To be used as topcoat in atmospheric environments.

Typical use

Marine:
Recommended for topside, deck and superstructure.

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

Approvals and certificates

Pre-qualified in accordance with NORSOK M-501 in selected systems

Certified in accordance with IMO 2010 FTP code – Low Flame Spread

Additional certificates and approvals may be available on request.

Colours

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

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	72 ± 2 %
Gloss level (GU 60 °)	ISO 2813	gloss (70-85)
Flash point	ISO 3679 Method 1	30 °C
Density	calculated	1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	192 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	192 g/l
EU	European Paint Directive 2004/42/CE	ISO 11890-2	159 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	192 g/l
Korea	Korea Clean Air Conservation Act	Calculated	192 g/l
China	Mandatory national standard of China	GB 30981.2-2025	240 g/l

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

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

Gloss description: According to Jotun Performance Coatings' definition.

The VOC values refer to white colour.

Film thickness per coat

Typical recommended specification range

Dry film thickness	60	-	100	µm
Wet film thickness	80	-	130	µm
Theoretical spreading rate	12	-	7.2	m²/l

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

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating. Lightly abrade surface prior to coating application.

Application

Application methods

The product can be applied by

Spray:	Suitable for air spray and airless spray.
Brush:	Recommended. Care must be taken to achieve the specified dry film thickness.
Roller:	Recommended. Care must be taken to achieve the specified dry film thickness.

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

Product mixing

Single pack. Ensure lid is properly closed when not in use. Coating will cure in contact with moisture from the air. Improperly closed lid will lead to in-can curing and change of properties of the applied product.

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 2

Thinning max.: 10 %

At substrate temperatures 5 °C and below thinning with Jotun Thinner No. 7 will improve levelling.

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

Note: Korean VOC regulation "Korea Clean Air Conservation Act" and its corresponding thinning limit will prevail over recommended thinning volumes.

Cleaning solvent: Jotun Thinner No. 7

When thinners are used as a cleaning solvent, the use must be in accordance with prevailing local regulations.

Guiding data for airless spray

Nozzle tip (inch/1000): 13-19

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

Guiding data for air spray

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

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

Drying and Curing time

Substrate temperature	0 °C	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	20 h	10 h	5 h	3 h	2 h
Walk-on-dry	48 h	12 h	7 h	4 h	3 h
Dry to over coat, minimum	32 h	12 h	7 h	4 h	3 h
Dried/cured for service	20 d	15 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 above 30 %, and at average of the DFT range for the product. The humidity can affect the rate of curing due to the moisture curing properties of the coating.

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.

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

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium.

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

This product is recommended to be used in system with the following Jotun primers.

Previous coat:	Penguard Universal Penguard Express Jotamastic Smart Pack HB Jotamastic 90 Jotamastic 90 WG Jotamastic Plus Alu For combinations with other systems please consult your local Jotun Office.
Subsequent coat:	Itself.

Packaging (typical)

	Volume (litres)	**Size of containers (litres)**
Hardtop One	5/20	5/20

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 One 12 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.

Environmental Documentation

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

This product can contribute to Green Building Standard credits. Please refer to Jotun.com for more information or contact your local Jotun representative.

Environmental Product Declaration (EPD) is available at www.epd-norge.no

Caution

This product is for professional use only. The applicator and operator 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 should 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 in 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 sought medical attention 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 data given 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