# **Technical Data Sheet**



# SteelMaster 60WB

# **Product description**

This is a one component waterborne acrylic thin film intumescent coating. Independently approved for fire protection of structural steel exposed to cellulosic fire. Can be used as mid coat or finish coat in atmospheric environments. Suitable on approved primers on carbon steel substrates.

## **Typical use**

Specially designed as passive fire protection for steel constructions. Suitable for structural steel exposed to internal environments up to corrosivity category C3 (ISO 12944 -2).

### **Approvals and certificates**

This product contributes to the Green Buildings Standard credits. Please see section Green Building Standards.

ASTM E84

Chinese GB14907:2018

Additional certificates and approvals may be available on request.

#### **Colours**

white, grey

# **Product data**

Property	y Test/Standard Desc			
Solids by volume	ISO 3233	72	± 3 %	
Flash point	ISO 3679 Method 1	63 °C		
Density	calculated	1.4 kg/l		
Region	Regulation	Test Standard	VOC Value	
China	GB 30981-2020 Limit of harmful substances of industrial protective coating	GB/T 23986-2009 10.4 s	0 g/l	

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

Volume solids measured according to ISO 3233 and ASFP-BCF Guidance Method

The VOC values refer to white colour.

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# Film thickness per coat

#### Typical recommended specification range

Dry film thickness 200 - 720  $\mu$ m Wet film thickness 300 - 1000  $\mu$ m

All steel sections must be coated with correct film thickness to achieve the required fire rating. Please refer to the current loading tables. For further advice please contact your local Jotun office.

Note: The film thickness is only achievable by airless spray application in one coat.

# **Surface preparation**

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

## 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.

## **Product mixing**

Single pack

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## **Thinner/Cleaning solvent**

Do not add thinner. The product is ready to use and should not be thinned.

Cleaning solvent: Fresh water

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

Nozzle tip (inch/1000): 17-23

Pressure at nozzle (minimum): 200 bar/2900 psi

# **Drying and Curing time**

Substrate temperature	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	8 h	4 h	2 h	1 h
Dry to handle	24 h	16 h	6 h	4 h
Dry to over coat, minimum	24 h	16 h	6 h	4 h

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

All drying times have been measured at a wet film thickness of 1000  $\mu m$  under controlled temperature and relative humidity below 80 %.

#### **Topcoating:**

The minimum overcoating interval of this product is 48 hours. The system should be dry to handle and coating thickness gauge should not to leave an indentation on the coating. Drying time/overcoating interval may be extended if there is a drop in temperature or if multi-coat system is applied. Prior to application of topcoat, the applicator must ensure that the specified dry film thickness has been achieved.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Dry to handle: Minimum time before the coated objects can be handled without physical damage.

Dry to over coat, minimum: The recommended shortest time before the next coat can be applied.

# 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: alkyd, epoxy, epoxy zinc phosphate, zinc epoxy (with epoxy tie coat)

Subsequent coat: approved list of topcoats

To ensure fire performance, primers and topcoats must be compatible with SteelMaster 60WB

Contact your local Jotun office for a list of approved Jotun primers and topcoats.

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# Packaging (typical)

Volume Size of containers (litres) (litres)

18.5 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**

SteelMaster 60WB

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.

When storing and transporting, the temperature must be between 5 °C and 25 °C. Outside of this, it is advisable to use climatic control. Protect from freezing at all times during storage and transport.

#### Shelf life at 23 °C

SteelMaster 60WB 6 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 product contributes to Green Building Standard credits by meeting the following specific requirements:

#### LEED®v4 (2013)

EQ credit: Low emitting materials

- VOC content for Fire Resistive Coatings (350 g/l) (CARB(SCM)2007) and emission  $\leq$  0.5 g/l (CDPH method 1.1) MR credit: Building product disclosure and optimization
- Material Ingredients, Option 2: Material Ingredient Optimization, International Alternative Compliance Path REACH optimization: Fully inventoried chemical ingredients to 100 ppm and not containing substances on the REACH Authorization list Annex XIV, the Restriction list Annex XVII and the SVHC candidate list.

#### BREEAM® International (2016)

- Hea 02: VOC exemplary emission ((ISO 16000-9/10 (2006) or CDPH method 1.1 (2010)/1.2 (2017)) and the VOC content for One-pack performance coatings WB (100 g/l)

### BREEAM® International (2013)

- Hea 02: VOC content for One-pack performance coating WB (140 g/l) (EU Directive 2004/42/CE)

## **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**

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This Technical Data Sheet supersedes those previously issued.

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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.

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