Technical Data Sheet

SteelMaster 900WF

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 a reactive fire protection system for steel constructions. Designed to protect for up to 120 minutes on a wide range of I section beams, columns and hollows. Fire tested and approved to BS 476 part 20/21.
Suitable for structural steel exposed to internal environments. For a detailed coating specification please contact your local Jotun representative.

Approvals and certificates

BS 476 part 20/21: Certifire CF 6140
Cellular beams RT1356
EN13381-9
ASTM E84: Class A

Additional certificates and approvals may be available on request.

Colours

white

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	73 ± 4 %
Flash point	ISO 3679 Method 1	101 °C
Density	calculated	1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	22 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	22 g/l
EU	European Paint Directive 2004/42/CE	Calculated	0 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	14 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.

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

Film thickness per coat

Typical recommended specification range

Dry film thickness	220	-	730	µm
Wet film thickness	300	-	1000	µm

Single coat system or final coat on a multi-coat system may be applied up 1500um WFT, depending upon steelwork configuration, geometry, primer used and ambient conditions. 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

Substrate	Surface preparation	
	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.

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

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Product mixing

Single pack

Thinner/Cleaning solvent

Thinner: Fresh water

The product is ready for use. Thinning will affect sag resistance and can delay drying times.

Cleaning solvent: Fresh water

Guiding data for airless spray

Nozzle tip (inch/1000): 19-23

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

Drying and Curing time

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

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

Dry to overcoat minimum is with self. See additional guidance for Topcoating.
All drying times have been measured at a wet film thickness of 1000 µm under controlled temperature and relative humidity below 80 %.

The product can be applied at minimum temperatures down to 5 °C. For optimum application and drying, steel and air temperatures should be above 10 °C.

Topcoating
The minimum overcoating interval of this product with an approved topcoat is 24 hours.
The system should be dry to handle and coating thickness gauge should not leave an indentation on the coating.
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.

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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 900WF. Contact your local Jotun office for a list of approved Jotun primers and topcoats.

Packaging (typical)

	Volume (litres)	Size of containers (litres)
SteelMaster 900WF	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

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 (41 °F) and 35 °C (95 °F). 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 900WF	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.

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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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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