

Technical Data

Steelmaster 120SB



Product description

Steelmaster 120SB is a high solids (solvent borne) single pack, thin film intumescent coating. The product is independently tested and assessed at accredited laboratories - for structural steelwork.

Recommended use

The product is designed to be used as the reactive midcoat in a full passive fire protection system.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	200	1400	700
Film thickness, wet (μm)	280	1950	970
Theoretical spreading rate (m^2/l)	3,6	0,5	1

Comments

The nominal DFT mentioned above are for application purposes only. All steel sections must be coated with correct loading/ film thickness to achieve the specified fire rating. Please refer to the current loading tables or contact your local Jotun office for more information.

Note: The maximum and typical film thickness are only achievable by Airless Spray.

Approvals

BS 476 part 20/21

Physical properties

Colour	Grey, White
Solids (vol %)*	72 ± 3
Flash point	25°C ± 2 (Setaflash)
VOC	310 gms/ltr UK-PG6/23(97). Appendix 3
Gloss retention	Good
Water resistance	Limited
Abrasion resistance	Good
Chemical resistance	Limited
Flexibility	Limited

*Measured according to ISO 3233:1998 (E)

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Coated surfaces

Clean, dry and undamaged compatible primer. Please contact your local Jotun office for more information.

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure correct drying.

Application methods

Spray	Use airless spray
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	Single pack
Mixing	Do not thin/ready for use.
Cleaner	Clean equipment with Jotun Thinner No. 7

Guiding data airless spray

Pressure at nozzle	Minimum 25 MPa (200 kp/cm ² , 2800 psi).
Nozzle tip	0.48-0.68mm (0.019-0.027").
Spray angle	20-100°
Filter	30 mesh internal filters recommended. Check to ensure that filters are clean.

Note The Inside hose diameter of the spray line is required to be 10mm (except the whip end at 8mm) and the maximum recommended length of spray line is 60 Meters

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

Substrate temperature	5°C	10°C	23°C	40°C
Surface dry	2 h	1 h	30 min	20 min
Through dry	48 h	24 h	16 h	8 h
Dry to recoat, minimum	24 h	8 h	4 h	2 h
Dry to recoat, maximum ^{1 & 2}				

1. The surface must be free from any contamination and if necessary, sufficiently roughened prior to application. Due to the high DFT achievable with Steelmaster products, please contact your local Jotun office for the respective maximum dry to recoat values.
2. Early exposure to rainwater and condensation (high humidity, low temperature) may cause defects. Water ponding must be avoided (unless suitable topcoat is first applied).

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Penguard Express ZP	1 x 75 µm	(Dry Film Thickness)
Steelmaster 120SB	As required to achieve specified fire rating*	
Pioner Topcoat	1 x 50 µm	(Dry Film Thickness)

*WFT/ DFT as per current loading tables

Do not exceed maximum thickness for each coat stated. For multi coat applications, optimum drying properties may be achieved with typical thickness per coat.

Primers and Topcoats must be compatible with Steelmaster 120SB to ensure fire performance.

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

Other systems may be specified, depending on area of use

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed. Shelf life at 23°C: 18 months. Thereafter the paint quality is subject to re-inspection.

Handling

Handle with care. Stir well before use.

Packing size

20 litre and 5 litres units

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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