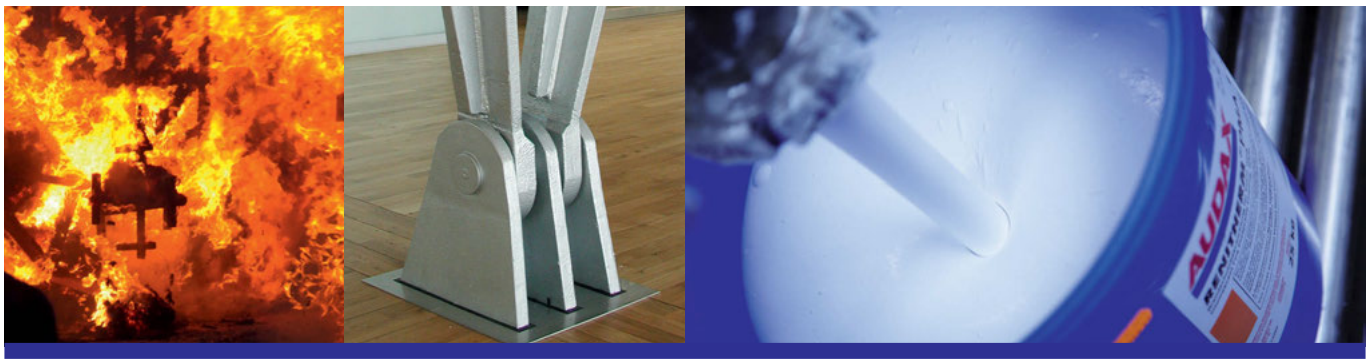
RENITHERM® PMS

Solvent-based fire protective Basecoat for structural steelwork. Indoors / outdoors



Fire resistance rating: 30 minutes; 1 hour; 1 1/2 hours; 2 hours (Tests acc. International Standards)

Product Description

Renitherm® PMS is a white single pack thin film coating that foams up under the effect of fire/heat (intumescent) to form an insulating layer.
Renitherm® PMS fire protection system for structural steel is available in two different grades for internal and external use.

Application Check List

The following instructions are for on- site application only. Seek our advice for off-site application.
Ensurethat:

- Renitherm® PMS is stored correctly.
- Surface is dry and free from contamination.
- Correct spray equipment is used.
- Primer is compatible with Renitherm® PMS and is applied correctly.
- Overcoating time for the Primer has not been ecxeeded.
- All damage to the Primer has been repaired and re-primed.
- Site and weather conditions are within the specification.
- Application instruction have been read before starting of work.
- Different base coats are not applied on the same section of steel.
- Equipment is clean and free from contaminants or dried material.
- Wet film gauges are available for use.

Material Properties	Renitherm® PMS
Colour shade	offwhite
Supply containers	25 kg
Consistency supplied form:	sprayable and brushable
Flash point	> +25 °C
Spec. Gravity, DIN 51757	1,25
Volume solids, DIN 3251	73 %, ± 2 %
VOC	≤ 350 g/l
Shelf life	min. 12 months from date of delivery in unopened containers stored in closed rooms at temperatures of at least 5 °C
Drying	approx. 15 hours at 15 °C to 20 °C object temperature and 65 % rel. humidity. Lower temperatures, higher rel. humidity and different fire protection coating thickness can prolong drying.

Surface Preparation
Renitherm® PMS should be applied onto a clean, undamaged, dry and primed steel surface only. Following Primers are not compatible with Renitherm® Bitumen, Thermoplastic Primers. Contact AUDAX for compatibility of Primer if you intend to use different Primer like Renitherm® Primers.

Application
Renitherm® PMS is supplied ready for use and must not be thinned but should be thoroughly mechanically stirred prior to use.

Substrate – a compatibility test on the existing coatings with the fire protection system is recommended.
Any damage (impact, corrosion etc.) should be repaired prior to coating.

Preparation of material: – stir thoroughly (slow rotation), free of lumps.

Object temp.: – not below +5 °C to max +50 °C.

Relative humiditiy: – 30–80 % during application.
Any coating application and drying must be above dew point.

Method of application:
– airless spraying:
equipments with a ratio of 45:1
– Yield 4 5 Litre/min
– recommended is an intermediate drying period of 2 hours for applying the amount of 2.000 g/m²
– brushing/rolling: several coats are necessary with intermediate drying time of approx. 2 hours

Spray pressure: – with piping length of approx 10 m:
a) on the gun: 180 bar
b) on the paint container: 2,0–4,0 bar
These figures can vary according to the apparatus and length of piping.

Spray distance: – approx. 30 cm

Tip size: – recommended are 0,019–0,027 inch

Thinner: – Renitherm VD 1

Thickness requirements: – During application, measure the wet film thickness frequently with the gauge provided to ensure the correct thickness being applied.
To use the gauge, insert the teeth into the wet basecoat. The last tooth to be coated indicates the wet film thickness achieved.
In the event of over or under applications, adjustments to the loading rates of subsequent coats will be required.

Drying times: – drying of Renitherm® PMS is dependent upon a number of factors including
– temperature
– air movement
– thickness of coating
– humidity
– method of application

High humidity and low air movement or low steel temperatures will increase drying timees and low ambient temperatures. Thicker coats will also take longer to dry than thin coats. Once the total loading of PMS has been applied, the coating must be completely dry before application of the Topseal. This typically can be between 5 days for lower loading and up to 15 days for maximum loadings. Brush or roller application may may take up to 20 % longer to dry compared to spraying.

Final thickness check:
– The dry film thickness (DFT) readings as soon as the coating is sufficiently hard to allow a reading to be made without indenting the surface. DFT's may be taken using equipment such as permanent magnetic type or an electrmagnetic type recorder.
Ensure that the DFT of the primer is deducted from the reading of the basecoat. Do not apply topseal until the readings are in accordance with the specified thicknesses.

Top coat:
– **interior:**
for decorative reasons and additional long-term protection of the intumescent coating we recommend Renitherm® TC or a top coat compatible for intumescent paints
application quantity:
1 x approx. 150 g/m²
– **exterior:**
application of 2 x 150 g/m² is necessary for structural steelwork exposed to weathering and for use in rooms with wet or humid ambient conditions.

Maintenance:
– Damaged areas should be abraded back to a sound surface preferably by wet abrasion. The surface should then be clean and dry before re-applying. PMS filler may be used for repairing scratches and chips. Once repaired topseal should be re-applied.

General remarks:
– Cleaning of apparatus immediately after use with thinner.
Coating may only be applied to dry and clean surfaces.

Storage:
– Renitherm® PMS should be stored between +5 °C and +30 °C and protected from direct sunshine. If stored below +5 °C, material should be warmed slowly. The shelf life is 18 months from date of manufacture, subject to re-inspection thereafter. Containers should remain unopened until needed. Shelf life may be reduced at higher storage temperatures.

AUDAX fully complies with the requirements of EN ISO 9001 standard. This certification is one more proof for Renitherm®'s quality, reliability and safety.

made in Germany

ISO 9001 CERTIFICATION Intertek

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