



Protective & Marine Coatings

FIRETEX® FX2003 SOLVENT BASED INTUMESCENT

Revised 12/2021 Issue 9

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A single pack thin film intumescent coating

RECOMMENDED USE

FIRETEX FX2003 is designed for in-shop application by airless spray, to provide fire resistance for up to 120 minutes on structural steel.

After appropriate drying, FIRETEX FX2003 specifications can be exposed to the weather for up to 6 months provided that the specific use or storage does not lead to ponding water due to rainfall, condensation or other site/transportation/storage circumstances.

ENDORSEMENTS

Tested to BS476-20/21. Assessed in accordance with the ASFP Yellow Book 5th Edition.
Certifire Approved – Certificate CF5077.

Tested and assessed in accordance with the ASFP Yellow book 5th Edition for cellular beam protection.

RECOMMENDED APPLICATION METHODS

Airless Spray

Recommended Cleanser/Thinner: No 2

PRODUCT CHARACTERISTICS

Flash Point: 2°C

% Solids by Volume: 75 ± 4% ASTM-D2697-03(2014)

Colour Availability: White

VOC

272 gms/litre determined practically in accordance with UK Regulations PG6/23
351 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
266 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

RECOMMENDED THICKNESS

See separate sheet of FX2003 loading requirements.

PRACTICAL APPLICATION RATES - MICRONS PER COAT

Airless Spray	
Dry	1400
Wet	1867

AVERAGE DRYING TIMES

	@ 15°C	@ 23°C
To touch:	30 minutes	20 minutes
To recoat:	4 hours	4 hours
To handle:	This will depend on the total thickness of FIRETEX FX2003 to be applied	
<i>These figures are given as a guide only. Factors such as air movement and humidity must also be considered.</i>		

RESISTANCE TO

FIRETEX FX2003 can resist normal weather conditions for up to 6 months without topcoat provided it has had appropriate drying prior to exposure. Once an approved topcoat has been applied as appropriate to the prevailing conditions, then durability will be substantially enhanced.

If the specific use or storage could lead to prolonged contact with water due to rainfall, condensation, or other site/transportation/storage circumstances, then a recommended topcoat must be used to prevent damage to the basecoat.

RECOMMENDED PRIMERS

For in-shop application, use FIRETEX C69 Fast-Track Blast Primer

Several primers have been approved for use under FIRETEX FX2003. Please consult Sherwin-Williams for detailed information.

RECOMMENDED TOPCOATS

For certain dry, internal situations where the final colour/appearance is not critical, then FIRETEX FX2003 may remain un-topcoated.

For externally exposed steelwork and severe internal environments Acrolon C137V2, Acrolon 7300 or Acrolon C237 must be used as a topcoat. For other internal environments where a topcoat is required then FIRETEX M71V2 or Sher-Cryl M770 should be used.

In all instances for subsequent re-decoration, use FIRETEX M71V2, Sher-Cryl M770, Acrolon C137V2, Acrolon 7300 or Acrolon C237 as appropriate.

PACKAGE

A single component material

Pack Size:	200 litre and 20 litre units
Weight:	1.32 kg/litre
Shelf Life:	2 years from date of manufacture or 'Use By' date where specified.



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SURFACE PREPARATION

FIRETEX FX2003 is designed for use over a suitably prepared and primed substrate.

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

Under certain circumstances it may be possible to apply FIRETEX FX2003 directly to steel blast cleaned to a minimum standard of Sa2½ BS EN ISO 8501-1:2007, surface profile in the range 50-100 microns. Consult Sherwin-Williams Technical Sales Department for further details.

APPLICATION EQUIPMENT

Airless Spray

Nozzle Size: 21 – 27 thou (0.53 – 0.69mm) depending on application requirements
Fan Angle: 30°

Operating Pressure: 210kg/cm² (3000 psi)

The details of airless spray tip orifice size, fan angle and pressure are given as a guide. Smaller fan angles should be used where the size of the work to be sprayed makes this appropriate. It may be found that slight variation in tip orifice size or pressure will provide optimum atomisation in some circumstances. In general, the operating pressure should be the lowest possible consistent with satisfactory atomisation.

Recommended Equipment : Use a 56:1 or 68:1 Graco King or equivalent. Use 3/8" (9.53mm) ID fluid lines where lengths in excess of 3 metres are required. In-line gun or pump filters should not normally be used. Maximum length of fluid line should not exceed 60 metres.

For use on narrow web sections, the smallest tip recommended is a 21 thou (0.53mm) with a 60 mesh pump filter.

APPLICATION CONDITIONS AND OVERCOATING

This material should preferably be applied at temperatures in excess of 5°C. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature should be at least 3°C above the dew point and always above 0°C.

The material must be protected from moisture during the drying period. Moisture ingress prior to drying may affect the integrity and fire protective properties of the coating.

No more than 2 coats by airless spray should be applied within any 24 hour period.

If the maximum recommended thickness per coat is exceeded or high film thicknesses are overcoated prematurely, cracking may occur.

FIRETEX FX2003 is capable of withstanding external exposure without topcoat providing:

- The product is allowed to dry for at least 24 hours at 15°C in dry conditions with good air movement and ventilation. These conditions are based on a total dry film thickness of up to 800 microns. The drying time required will be increased if the film thickness is greater than 800 microns.
- The substrate temperature is at least 3°C above the dew point at the time of application and during the drying period.

ADDITIONAL NOTES

Maximum service temperature is 70°C. At temperatures greater than 40°C thermoplasticity may be observed.

Maximum Allowable Dry Film Thickness

The values stated below are the maximum allowable measured mean dry film thicknesses for this product. If measured mean thicknesses are in excess of these values, measures need to be taken to reduce the measured thickness to below the maximum allowed:

3 sided I beam : 4249µm (163.3 mil)
4 sided I column : 5777µm (227.4 mil)
RHS column : 5288µm (208.2 mil)
CHS column : 5520µm (217.3 mil)
3 sided RHS beam : 2890µm (113.8 mil)

Dry Film Thickness Measurement

All dft specifications quoted are mean values, measurements should be taken for I-Sections to the following recommendations:
Web – 2 per 100cm length
Flange – (upper, lower, inside and outside) – 1 per 100cm length
High dft's and/or reduced temperatures will extend the drying time and hence the period when dft measurement can be carried out accurately.

For further information refer to Sherwin-Williams Technical Sales Department.

Maintenance

Small areas of mechanical damage can be repaired using FIRETEX M72, FX1003 or FX2003 as preferred.

Larger areas of mechanical damage should be repaired using FIRETEX FX1003 or FX2003 as preferred, applied by brush or spray.

All repairs should then have the original topcoat reinstated by brush or spray as required.

Numerical values quoted for physical data may vary slightly from batch to batch.

HEALTH AND SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.