Protective & Marine Coatings

FIRETEX® FX1002
SOLVENT BASED INTUMESCENT

Revised 12/2021 Issue 12

PRODUCT INFORMATION

PRODUCT DESCRIPTION

A single pack thin film intumescent coating.

RECOMMENDED USE

FIRETEX FX1002 is designed for site application by airless spray, to provide fire resistance for up to 120 minutes on structural steel.
After appropriate drying, FIRETEX FX1002 specifications can be exposed to the weather for up to 6 months provided that the specific use does not lead to ponding water due to rainfall, condensation or other site circumstances.

ENDORSEMENTS

Tested and assessed to EN13381-8
European Technical Assessment ETA-20/1227
CE Mark Number 2812-CPR-GA5005

RECOMMENDED APPLICATION METHODS

Airless Spray
Brush

Recommended Cleanser/Thinner: No 2

PRODUCT CHARACTERISTICS

Flash Point: 27°C

Colour: White

Volume Solids: 75 ± 4% (ASTM-D2697-91)

VOC:
286 gms/litre determined practically in accordance with UK Regulations PG6/23
355 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive
264 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

RECOMMENDED THICKNESS

See separate sheet of FX1002 loading requirements

PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray:	Brush
Dry:	1400	300
Wet:	1867	400

AVERAGE DRYING TIMES

	@ 15°C	@ 23°C/74°F
To touch:	1 hour	30 minutes
To handle:	This will depend on the total thickness of FIRETEX FX1002 to be applied	
To recoat	4 hours	4 hours

RESISTANCE TO

FIRETEX FX1002 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

Several primers have been approved for use under FIRETEX FX1002. Please consult Sherwin-Williams for detailed information.

RECOMMENDED TOPCOATS

For certain dry, internal situations where the final colour/ appearance is not critical, then FIRETEX FX1002 may remain un-topcoated.

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

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

PACKAGE

A single component material

Pack Size:	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 FX1002 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 FX1002 directly to steel blast cleaned to a minimum standard of Sa2½ BS EN ISO 8501-1:2001, surface profile in the range 50-100 microns. Consult Sherwin-Williams 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 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.

Brush
The material is suitable for brush application, but due to the nature of the material a ribbed appearance may result. Application of more than one coat may be necessary to give equivalent dry film thickness of a single spray applied coat.

APPLICATION CONDITIONS & OVERCOATING

This material should preferably be applied at temperatures in excess of 5ºC. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature shall be at least 3ºC above the dew point and always above 0°C. The application of FIRETEX FX1002 at elevated temperatures may reduce the sag resistance of the product. It is the responsibility of the applicator to determine what thickness of material can successfully be applied at the prevailing ambient temperature.

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 FX1002 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.

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.

Maintenance
Small areas of mechanical damage can be repaired using FIRETEX M72, FX1002 or FX2002 as preferred.
Larger areas of mechanical damage should be repaired using FIRETEX FX1002 or FX2002 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.

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: 4,095 µm (161.2 mil)
4 sided I column: 4,200 µm (165.4 mil)
RHS column: 5,080 µm (200.0 mil)
CHS column: 5,379 µm (211.8 mil)
3 sided RHS beam: 2,329 µm (91.7 mil)
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.