



# Protective & Marine Coatings

# FIRETEX® FX5120 WATER BASED INTUMESCENT

Revised 12/2021 Issue 16

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

A water based TCEP free thin film intumescent coating

### RECOMMENDED USE

FIRETEX FX5120 is designed for application by airless spray, to provide fire resistance for periods of up to 120 minutes on structural steel. FX5120 can also be used to enhance the fire resistance of concrete slabs and decks up to 60minutes. For use in internal dry controlled environments without topcoat (C1 according to BS EN ISO12944-2:2017) and external urban or uncontrolled internal environments (C3 according to BS EN ISO12944-2:2017) with topcoat

### ENDORSEMENTS

Tested and assessed to EN13381-8, EN13381-9 and EN13381-3.  
European Technical Assessment ETA 20/1226  
CE Mark number 2812-CPR-GA5016.

### RECOMMENDED APPLICATION METHODS

Airless Spray  
Brush

**Recommended Thinner:** Water – Thinning will have an adverse effect on sag tolerance.

### PRODUCT CHARACTERISTICS

**% Solids by Volume:** 69 ± 3% ASTM-D2697-03(2014)

**Colour Availability:** White

#### VOC

3.35 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive  
2.41 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

### RECOMMENDED THICKNESS

See separate sheet of FX5120 loading requirements.

### PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray	Brush
Dry	1000*	300
Wet	1450	441

\* Maximum sag tolerance typically 1800µm wet (1242µm dry) by airless spray.

### AVERAGE DRYING TIMES

@ 15°C

@ 23°C

**To touch:** 5 hours 3 hours

**To recoat:** 24 hours 6 hours

**To handle:** This will depend on the total thickness of FIRETEX FX5120 to be applied

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

*These figures are given as a guide only. Factors such as air movement and humidity must also be considered.*

### RECOMMENDED PRIMERS

A range of primers have been fire tested and approved for use under FIRETEX FX5120.  
For use on concrete, a number of Epoxy Primers have been approved.  
Please consult Sherwin-Williams Customer Service Department for detailed information.  
**Must not be applied directly to galvanized steel, zinc rich primers or concrete.**

### RECOMMENDED TOPCOATS

**If it can be guaranteed that application and subsequent in-service conditions will be in a C1 environment as defined in BS EN ISO12944-2:2017, then no topcoat is required.**

For any other situation a topcoat must be applied, consult Sherwin-Williams for advice.

Sher-Cryl M770  
FIRETEX M71V2,  
Acrolon 7300, Acrolon C137V2 or Acrolon C237  
The above products should be used for subsequent re-decoration.

### PACKAGE

A single component material

**Pack Size:** 20 litre units

**Weight:** 1.39 kg/litre

**Shelf Life:** 10 months from date of manufacture. This is designated by the "Use by" date on the pail. Both transportation and long term storage of the product must be in a covered environment, out of direct sunlight and in the temperature range 5° to 35°C.  
Protect from freezing at all times.



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### **SURFACE PREPARATION**

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

For use on concrete, please consult Sherwin-Williams.

### **APPLICATION EQUIPMENT**

#### **Airless Spray**

Nozzle Size: 19 - 23 thou depending on application requirements

Operating Pressure: 175kg/cm<sup>2</sup> (2500 psi)

#### **Petrol Unit:**

Nozzle Size: 19 - 23 thou depending on application requirements

Operating Pressure: 175kg/cm<sup>2</sup> (2500 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicator's responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Sherwin-Williams should be consulted.

Use 3/8" ID fluid line where lengths in excess of 10 feet are required. In-line gun or pump filters should not normally be used.

#### **Brush**

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

### **APPLICATION CONDITIONS AND OVERCOATING**

**FIRETEX FX5120 must be applied in a dry environment. It must not be exposed to condensation, damp or wet conditions during or after application.**

In conditions of high relative humidity good ventilation conditions are essential. Substrate temperature shall be at least 3°C above the dew point.

**At application temperatures below 10°C, drying times will be significantly extended, and spraying characteristics may be impaired.**

**A minimum air and substrate temperature of 5°C is required to ensure proper film formation.**

**Relative humidity should not exceed 80% to ensure proper film formation.**

**Extended overcoating times may be required at low temperatures and/or high film thicknesses.**

Application may be undertaken outdoors in environments which can be guaranteed to be dry, and offer suitable temperature and humidity conditions for the coatings to dry.

Under these external application conditions, sufficient measures shall be taken to protect the coatings from contaminants such as dust, sand, moisture etc during the drying process.

Occasionally impaired film formation such as cracking may occur on edges of flanges and external or internal angles of structural steel, depending on geometry, over-application and ambient conditions. This does not detrimentally affect the fire performance properties of the product.

### **ADDITIONAL NOTES**

In common with other water based coatings, the drying of this material is retarded by high humidity conditions. Lack of air movement also slows down the drying process, and under such conditions it is advisable to introduce some method of circulating air over the coated surface in order to speed up the drying. A ventilated air speed of 2 metres per second is recommended.

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: 5,635 µm (221.9 mil)

4 sided I column: 7,328 µm (288.5 mil)

RHS column: 8,395 µm (330.5 mil)

CHS column: 8,409 µm (331.1 mil)

### **HEALTH AND SAFETY**

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

Unlike many other water based intumescent coatings, FIRETEX FX5120 does not contain tris-chloro ethyl phosphate ( TCEP ).

TCEP is a category 3 carcinogen, which would cause products to be classified as harmful. Since FIRETEX FX5120 is TCEP free, it is not classified as harmful by the Classification, Labelling and Packaging Regulation 2008.

### **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.