



**Protective
&
Marine
Coatings**



FIRETEX M93/02 EPOXY INTUMESCENT COATING

**PART A
PART B
SCRIM**

**B59W530
B59LV530
B59SC1**

**WHITE
BLUE ADDITIVE**

Revised: June 25, 2014

PRODUCT INFORMATION

PRODUCT DESCRIPTION

FIRETEX M93/02 is a solvent free thick film epoxy intumescent coating. It offers durable, epoxy fire protection products that are solvent free and fast curing, with fire protection for up to 2 hours on structural steel. It has resistance to the following:

- Moisture
- Alkali spillage
- Aliphatic solvents
- Weather
- Acid spillage
- Petroleum solvents
- Abrasion

PRODUCT CHARACTERISTICS

Color:	Pale Blue (white base plus blue additive)
Volume Solids:	100%, mixed
VOC:	0.0 g/L; 0.0 lb/gal
Mix Ratio:	2:1 by volume
Typical Thickness:	Consult FIRETEX PFP Specialist
Recommended Application Methods:	Plural component spray, airless spray, and trowel

Recommended Spreading Rate per coat:

Plural Component Spray

Wet mils (microns)	200.0 (5000)
Dry mils (microns)	200.0 (5000)

~Coverage **sq ft/gal** (m²/L)

Theoretical coverage **sq ft/gal** (m²/L) @ 1 mil / 25 microns dft

Maximum sag tolerance with overlap typically 275.0 mils (7000 microns) dry by plural component spray.

Drying Schedule:

	@ 40°F/5.0°C	@ 50°F/10°C	@ 60°F/15°C	@ 73°F/23°C
To touch:	6 hours	5 hours	4 hours	2 hours
To handle:	36 hours	30 hours	16 hours	12 hours
To recoat:				
minimum:	6 hours	5 hours	4 hours	2 hours
maximum:	no maximum recoat time			

Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 90 minutes*60 minutes*

*Trowel Application: At 95°F (35°C), pot life is 30 minutes. For working time under Plural Application, see FIRETEX M93/02 Application manual.

Sweat-in-time: None

Shelf Life:	24 months
Flash Point:	Above 131°F (55°C)
Reducer/Clean Up:	Firetex Thinner No. 9

RECOMMENDED USES

A very durable, corrosion resistant, epoxy intumescent coating providing pool fire protection to steel structures potentially exposed to hydrocarbon fires. Examples:

- Structural steel support members
- Pipe racks
- Vessel skirts
- Vessel saddles
- Tanks
- Vessels

Recommended for cryogenic applications when applied as a duplex system using FIRETEX M89/02.

ENDORSEMENTS

**NORSOK M501 Rev 5
UL1709
Design Number XR630**

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Plural Component Spray

Nozzle Size:29-35 mils (0.73-0.89 mm)

Fan Angle:40°

Operating Pressure:3000 psi (210 kg/cm²)

The details of plural component spray tip orifice size, fan angle and pressure are given as a guide only. The fan angle given is for work on large flat surfaces. 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 atomization in some circumstances. In general, the operating pressure should be the lowest possible to achieve satisfactory atomization.

Material is to be applied using plural component airless spray equipment which utilizes a minimum 10" King or air motor. Both base and additive need pre-heating to a minimum temperature of 113°F (45°C) while re-circulating through the unit, so that satisfactory spray application properties are obtained. Suitable insulated and heated lines should be used to maintain temperature prior to spraying. Contact your Sherwin-Williams representative for further details of recommended application equipment and methods.

Airless Spray

Firetex M93/02 can be applied thinned at temperatures ranging from 73-95°F (23-35°C). Maximum length of fluid line is 100ft (30m). All equipment and lines must be flushed out using Firetex Thinner No. 9. Contact your Sherwin-Williams representative for further details of recommended application equipment and methods.

Trowel and Preformed Castings

The material may be applied by trowel. Contact your Sherwin-Williams representative for further details of recommended application equipment and methods.

If specific application equipment is not listed above, equivalent equipment may be substituted.



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RECOMMENDED PRIMERS

Recommended primers are as follows:

- Recoatable Epoxy Primer
- Macropoxy 646
- Steel Spec Epoxy Primer

The primer used must be approved by Sherwin-Williams. Contact your Sherwin-Williams representative for details of the complete approved primers list and the qualification protocol.

RECOMMENDED TOPCOATS

Recommended topcoats are as follows:

- Hi-Solids Polyurethane
- Acrolon 218 HS
- Sherthane 2K

The topcoat used must be approved by Sherwin-Williams. Contact your Sherwin-Williams representative for details of the approved topcoat list and the qualification protocol.

Firetex M93/02 is indefinitely overcoatable with itself.

ADDITIONAL NOTES

Finish coat should be applied within seven days of final application of FIRETEX. If seven days is exceeded, abrading the FIRETEX surface is advised to ensure proper adhesion.

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies begins immediately when the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 20°F (10°C) increase in temperature and doubled by a 20°F (10°C) decrease in temperature.

Galvanized surfaces must be prepared according to SSPC SP-16 with minimum surface profile of 1.0 mils followed by priming with Macropoxy 646 series. FIRETEX may be applied directly over galvanized surfaces with minimum profile of 2.0 mils.

There may be slight variations in color from batch to batch. Larger variations in color, when using plural component spray, may indicate a fault with the spray equipment and this should be checked to ensure the correct ratio of base and additive are being delivered.

Sherwin-Williams maintains an extensive approved primer list. Details of the protocols for approving primer approvals can be supplied on request. Primer approvals are given on a project by project basis and may vary due to factors such as operating conditions, overcoating interval etc.

Applied Density is dependant on many variables such as temperature, test method, and application method and as such will always fall within a range.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Firetex Thinner No. 9. Clean tools immediately after use with Firetex Thinner No. 9. Follow manufacturer's safety recommendations when using any solvent.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation: SSPC-SP10/NACE 2 with a minimum surface profile of 2.0 mils.

SCRIM REINFORCEMENT - SC1 Scrim

Scrim reinforcement is necessary for M93/02. For details consult the M93/02 Application Manual.

APPLICATION CONDITIONS

The material should preferably be applied at temperatures in excess of 50°F (10°C). In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature should be at least 5.5°F (3°C) above the dew point and always above 32°F (0°C).

At application temperatures below 50°F (10°C), drying and curing times will be significantly extended. In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 50°F (10°C) during curing. Application at ambient air temperatures below 40°F (5°C) is not recommended.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of your Sherwin-Williams representative.

ORDERING INFORMATION

Order Quantity:

132 lbs (60 kg) mix: 2 units of Part A for every 1 unit of Part B

Part A:	B59W530-19 (~48 lbs / ~22 kg)
Part B:	B59LV530-19 (~36 lbs / ~16 kg)
Scrim:	B59SC1-99 (592.07 sq/ft/roll)

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.