Protective & Marine Coatings

FIRETEX M90/02
PRODUCT TECHNICAL DATA

PART A	B59W005500-19	WHITE
PART B	B59LV0550-19	BLUE ADDITIVE
	B59J00220-99	J220 SCRIM

Revised 10/2013 Issue 7

PRODUCT INFORMATION

PRODUCT DESCRIPTION

FIRETEX M90/02 is a solvent free thick film epoxy intumescent coating. It is a durable, epoxy fire protection product that is solvent free and fast curing, with fire protection for up to 3.5 hours on structural steel, decks and bulkheads. FIRETEX M90/02 is also tested for jet fire situations. 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:	Contact your Sherwin-Williams representative
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 (m^2/L)	**8.1** (0.2)

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	@ 75°F/24°C
To touch:	12 hours	8 hours	6 hours	3 hours
To handle:	48 hours	36 hours	24 hours	16 hours
To recoat:	12 hours	8 hours	6 hours	3 hours

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

Pot Life: 90 minutes*

*Trowel Application: At 73°F (23°C), pot life is 60 minutes and at 95°F (35°C), pot life is 30 minutes. For working time under Plural Application, see FIRETEX M90/02 Application manual.

Sweat-in-time: None

Shelf Life:	24 months
Flash Point:	Above 131°F (55°C)
Clean Up:	Thinner No. 9
Reducer:	Thinner No. 2

RECOMMENDED USES

As a thick film exterior durable intumescent coating for the treatment of offshore structures and other steelwork requiring fire protection, especially to Hydrocarbon and Jet fires.

ENDORSEMENTS

1998 COMPLIANT - 1990 EPA-PG6/23(97) Clause 20(d) - **Industrial**
BS476 Part 7 - Surface Spread of Flame Material - for details of substrate/scheme, contact your Sherwin-Williams representative.
Approved by Lloyds Register of Shipping.
Approved by Det Norske Veritas.
Approved by American Bureau of Shipping.
BS476 Part 20 and 21 Appendix D – Hydrocarbon Pool Fire Testing.
ISO 22899-1 Jetfire Resistance.
IMO Resolution MSC 61 (67): Annex 1, Part 2 – Toxicity Test.
NORSOK M501 Rev 6 system 5A.
Approved by Underwriters Laboratory to UL1709 (Design number XR632)
NFPA 58 Annex H Hose Stream Test
Tested and assessed to EN13381-8
European Technical Approval ETA 1310676

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: .....31-43 mils (0.79 – 1.09mm)
Fan Angle: .....40°
Operating Pressure: .....3000 psi (210 kg/cm^2)

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 113-131°F (45-55°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. Hot water can be used effectively for flushing out lines and equipment. Care should be taken as water will not dissolve epoxy resin based materials. If a true solvent is desirable for equipment maintenance then the use of Thinner No. 9 is recommended.

Airless Spray
FIRETEX M90/02 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 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. It is also suitable for the manufacture of preformed castings. 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.

Protective & Marine Coatings

FIRETEX M90/02
PRODUCT TECHNICAL DATA

PART A	B59W005500-19	WHITE
PART B	B59LV0550-19	BLUE ADDITIVE
	B59J00220-99	J220 SCRIM

Revised 10/2013 Issue 7

PRODUCT INFORMATION

RECOMMENDED PRIMERS

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

RECOMMENDED TOPCOATS

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 M90/02 is indefinitely overcoatable with itself.

ADDITIONAL NOTES

For detailed storage requirements and recommendations, refer to FIRETEX M90/02 Application Manual.

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.

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

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.

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.

FIRETEX M90/02 is designed for use over a suitably prepared and primed substrate.

Scrim Reinforcement
Where scrim reinforcement of the FIRETEX M90/02 is necessary, this should be carried out in accordance with FIRETEX M90/02 Application Manual.

APPLICATION CONDITIONS

The material should be applied at temperatures in excess of 50ºF (10°C). In conditions of high relative humidity, ie above 80% good ventilation conditions are essential. Substrate temperature should be at least 5.5ºF (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.

Application at ambient air temperatures below 40°F (5°C) is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 50ºF (10°C) during curing.

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

ORDERING INFORMATION

Packaging:	A two component material supplied in separate containers to be mixed prior to use.
Pack Size:	132.2 lbs (60kg) and 44.09 lbs (20kg) units when mixed.
Applied Density:	Independently tested: 8.35 lb/gal (1.00 g/cm^3) (see Addtiional Notes)

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.