



Protective & Marine Coatings
FIRETEX M89/02
SYNTACTIC EPOXY INSULANT

PART A **B59-510** **SERIES**
PART B **B59HV510** **BUFF ADDITIVE**

Revised 10/2013 Issue 3

PRODUCT INFORMATION

PRODUCT DESCRIPTION

FIRETEX M89/02 is a solvent free epoxy thermal insulating barrier. It has resistance to the following:

- Moisture
- Petroleum solvents
- Impact
- Alkali spillage
- Aliphatic solvents
- Weather

PRODUCT CHARACTERISTICS

Color: Buff
Volume Solids: 100%, mixed
Mix Ratio: 2.33:1 by volume

Typical Thickness:
 Project specific and will depend on such factors as steel thickness, operating temperatures, limiting temperatures and the insulation value required. Theoretical coverage of material is 1.0m²/ltr @ 1mm thickness

Recommended Application Methods: Trowel and plural component spray

Thermal Conductivity (K Value): 0.088W/mk @ 68°F (20°C)

Recommended Spreading Rate per coat:

	Trowel	Spray
Wet mm	10	10
Dry mm	10	10

~Coverage sq ft/gal (m²/L)

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

Maximum sag tolerance with overlap typically 20mm dry by trowel. Film thickness will vary depending on actual use and application.

Drying Schedule:

	@ 40°F/5.0°C	@ 50°F/10°C	@ 60°F/15°C	@ 73°F/23°C
To touch:	12 hours	11 hours	10 hours	8 hours
To handle:	48 hours	36 hours	24 hours	16 hours
To recoat:	36 hours	30 hours	24 hours	16 hours
<i>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.</i>				
Pot Life:	60 minutes		45 minutes	
Sweat-in-time:	None			

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

RECOMMENDED USES

Vessel & Riser Insulation underneath FIRETEX M90 Epoxy PFP
 Suitable for use at sustained operating temperatures of up to 302°F (150°C). See additional information on next page for further details regarding higher temperatures.
 Insulation of pipes and vessels for heat conservation and personnel protection.

ENDORSEMENTS

Norsok M501 Rev 6 system 5A

MIXING

It is advisable to store FIRETEX M89/02 at temperatures of 60-77°F (20-25°C) as this will assist the mixing process.

Prior to addition of the additive, the base should be stirred to ensure it is homogeneous.

Mix FIRETEX M89/02 by using a low shear mixer, until a consistent buff color is obtained. At this point, mixing MUST stop as excessive mixing can have an adverse effect on the product. UNDER NO CIRCUMSTANCES CAN CHAIN MIXERS BE USED.

After mixing, the product density should be checked by filling a 200 cc paper cup with the M89/02, ensuring as little air entrapment as possible, level off the M89/02 with the top of the cup, and then weigh the cup plus the M89/02. The weight should be less than 100 grams. Any weight higher than this indicates an excessive mixing process - consult Sherwin-Williams.

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
 Contact your Sherwin-Williams representative for details of equipment required.

Trowel
 By trowel (or float) application on flat surfaces, it is possible to obtain up to 20mm thickness in one application. For more complex shapes/ geometry, it may be necessary to apply more than one coat to obtain the required thickness.

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

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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.

ADDITIONAL NOTES

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 18°F (10°C) increase in temperature and doubled by a 18°F (10°C) decrease in temperature.

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

Epoxy Coatings - Color Stability:

Epoxy materials tend to yellow and darken with age particularly when used on internal areas. Therefore any areas touched-up and repaired with the same color at a later date may be obvious due to this color change.

When epoxy materials are exposed to ultra-violet light a surface chalking effect will develop. This phenomenon results in loss of gloss and a fine powder coating at the surface which may give rise to color variation depending on the aspect of the steelwork. This effect in no way detracts from the performance of the system.

There may be slight variations in color from batch to batch.

Epoxy Coatings - High Temperature Application:

FIRETEX M89/02 at the time of mixing should not exceed a temperature of 73°F (23°C), this is necessary to ensure a satisfactory working pot life. Use of this product outside its pot life may result in inferior adhesion properties even if the material appears fit for application. Thinning the mixed product will not alleviate this problem.

It is not advisable to apply epoxy coatings when the air and substrate temperatures exceed 113°F (45°C). These conditions can introduce paint film formation defects, such as bubbling and pinholing etc.

High Temperature Bursts:

The material is capable of withstanding short-term bursts of up to 365°F (185°C), when demanded for purging prior to shutdown. The material will cope with this provided it is spasmodic and not maintained at this higher temperature for long periods. Contact your Sherwin-Williams representative for further information.

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.

APPLICATION CONDITIONS

Epoxy paints should preferably be applied at temperatures in excess of 50°F (10°C). 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, and trowelling characteristics may be impaired.

Application and curing at ambient air temperatures below 40°F (5°C) and/or above 85% relative humidity is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 50°F (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:	~4 gallon (15L) and ~12 gallon (45L) units.
Density:	3.84 lb/gal (0.46 g/cm ³) (practical determination on the dry film)

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.

HEALTH & SAFETY

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

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.

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