



# ISOLATEK

# INTERNATIONAL

## Painting CAFCO® SFRMs

Painting of CAFCO SFRMs is often times required to achieve an aesthetic appearance. We frequently receive inquiries as to the appropriate method and materials used to paint CAFCO SFRMs. The following is a guide on the appropriate procedures:

- 1. Painting CAFCO® BLAZE-SHIELD® II or BLAZE-SHIELD HP (UL designations Type II or HP)**

When applying paint as a top coat or color coat over a BLAZE-SHIELD product it is required that the paint be non-bridging water-based latex. The paint should be applied over the material with the minimum amount required so as to avoid saturating the material. UL has approved this application of painting CAFCO SFRMs and confirms that it will not adversely affect the fire resistance rating. The NRC and R-Values may be reduced by 5-15%. It is recommended (not required) that CAFCO BOND-SEAL be applied prior to the application of the water-based latex paint. The CAFCO BOND-SEAL will tighten the surface of the BLAZE-SHIELD and will minimize the amount of paint that is absorbed during the painting process. This will limit the amount of paint needed and allow for a more uniform color. When applying paint as a topcoat the BLAZE-SHIELD product should be dry, this usually occurs within 14-28 days, the moisture content of the BLAZE-SHIELD material should not exceed 10%.
- 2. Painting CAFCO 300, 400, and FENDOLITE® M-II or TG (UL Designations Type 300, 400, M-II TG)**

CAFCO 300, 400 and FENDOLITE M-II/TG are wet-mix products, in addition to painting these product they can also be colored during the application process. The painting procedures are the same as with the BLAZE-SHIELD products. The following are application instructions for coloring the CAFCO wet-mix products during the application phase:

  - **USING CAFCO BOND-SEAL COLORED WITH A WATER SOLUBLE DYE OR PIGMENT**

BOND-SEAL can be colored with a water-soluble dye or pigment and applied to the SFRM surface. The dye or pigment must be compatible with a Polyvinyl Acetate Emulsion (PVA) that has a pH of 5. By mixing the dye or pigment with BOND-SEAL and applying the colored BOND-SEAL as a sealer, the desired surface color can be achieved.
  - **COLORING WITH INORGANIC PIGMENTS IN FIELD APPLICATIONS**

Inorganic pigments may be added to the mix water prior to adding the bag(s) of SFRM. Pigments are usually available in dry form and shall not exceed three percent of the wet mix material by weight (or 750 grams per 55-pound bag). The following are general procedures for coloring CAFCO wet mix SFRMs using inorganic pigments in the field. Please note that these procedures apply to CAFCO 300, 400 and FENDOLITE M-II or TG.

## GENERAL PROCEDURE FOR COLORING CAFCO WET MIX PRODUCTS IN THE FIELD

1. Weigh the desired coloring agent to the nearest whole gram. For UL classified products, the amount of coloring material shall not exceed three percent of the wet mix material by weight (or 750 grams per 55-pound bag).
2. Add the proper amount of water to the mixer for the specified product.
3. Add the weighed colorant.
4. Mix the water and colorant for thirty seconds.
5. Stop the mixer and add the bagged product.
6. Mix for the time specified for the particular wet mix product.
7. Confirm that mixer and nozzle densities of the colored product fall within specified ranges.

We trust this information is of assistance to you. Should you have any additional questions or comments please do not hesitate to contact our Technical Services Department at (973) 347-1200.



November 7, 2003

Isolatek International  
**Mr. Philip Mancuso**  
41 Furnace Street  
Stanhope, NJ 07874

Our Reference: File R3749, Project 03NK33830

**Subject: Use of Surface Coatings over Types D-C/F, II, HP, 300, 400  
and M-II**

Dear Mr. Mancuso:

This is in response to your electronic mail communication of November 6, 2003 regarding the application of your Types D-C/F, II, HP, 300, 400 and M-II Spray-Applied Fire Resistive Materials (SFRMs).

The use of surface coatings such as water based latex, vinyl acrylic, urethane or chlorinated rubber coatings as overspray on Types D-C/F, II, HP, 300, 400 and M-II SFRMs should not jeopardize the fire resistance ratings of the assemblies in which Types D-C/F, II, HP, 300, 400 and M-II are used.

It should be understood that the coatings are intended for surface coloring only. The application must be controlled so that the coatings do not saturate the material and thus possibly influence the bond between the SFRM and the steel substrate.

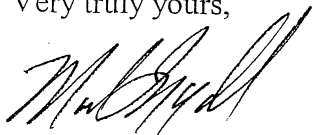
It is further understood that unless specifically indicated in the Fire Resistance Directory, these systems have not been investigated for exterior use.

Finally, the standard for Fire Tests of Building Construction and Materials, ANSI/UL 263 (ASTM E-119) does not cover the measurement of flame spread over the surface of tested materials. However, the flame spread index of the surface coating shall be limited to a maximum 200, unless further limited by the authority having jurisdiction.



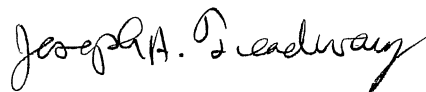
We trust the above answers your inquiry. However, if you should have any additional questions, please feel free to contact the writer.

Very truly yours,



MARK IZYDOREK  
Engineering Associate  
Fire Protection Division

Reviewed By:



JOSEPH A. TREADWAY  
Manager – Fire Resistance and Containment  
Fire Protection Division