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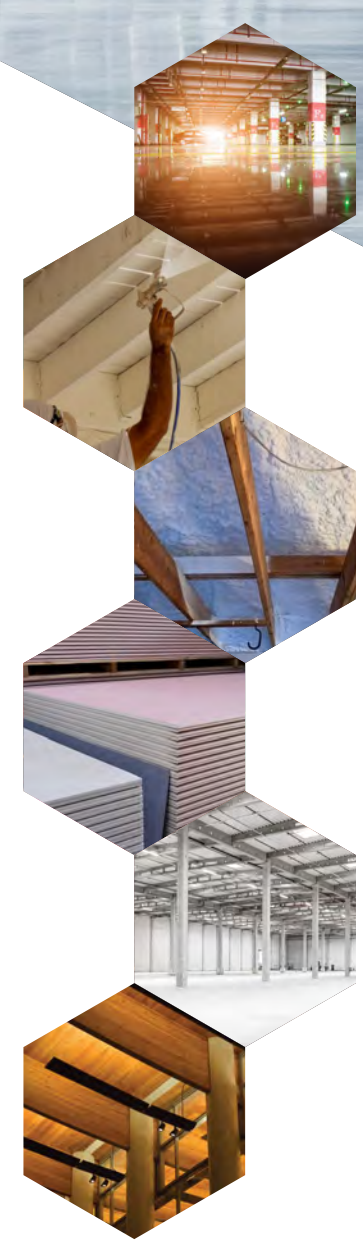

FLAMESEAL, LLC.

SC950 IFRM APPLICATION GUIDE

9420 Knight Road,
Houston, TX, 77045

www.flameseal.com

Ver.083123

CSI Divisions 07 | 09
Intumescent Fire Resistive Material

APPLICATION GUIDE SC950 (IFRM)

PRODUCT DESCRIPTION

SC950 is thin film, multi-purpose, water based intumescent coating - Intumescent Fire Resistive Material (IFRM), designed to protect exposed structural steel, wood floor/ceiling assemblies, and gypsum wall assemblies. This product allows architects and designers the opportunity to use thin film technology to highlight exposed structural details and enhance the overall design while reducing overall load structure. SC950 is tested under ASTM E119, UL 263, S101, and ASTM E84/UL 723 testing methods to achieve ratings for 1-2 hours, and Class A flame spread/smoke development. It is critical to adhere to our application methods to comply with the independent fire test evidence which supports its use: correct thickness, application, and finish of the product.

PRODUCT SAFETY

Personal protective equipment (PPE) must be used. This includes protective clothing , suitable eye protection, and gloves. Ensure adequate ventilation, and use breathing apparatus in the event of high concentration.

MATERIAL STORAGE

Product must be stored in a dry environment with a temperature range of 40°F to 90°F.

MIXING REQUIREMENTS

Jiffy styler mixers, or shielded spiral mixers are recommended, mix thoroughly for 2-4 minutes.

PUMP REQUIREMENTS

Electric, pneumatic, or gas-powered airless spray pumps are required for best spray application. Pump requirement is minimum 3000 PSI, and 1.25 gpm. Remove all filters from the gun and pump manifold.

HOSE REQUIREMENTS

High pressure hoses with minimum inner diameter of ⅜ inch are recommended. Do not exceed hose length of 150 ft, unless the spray equipment is designed for longer hoses.

SPRAY GUN

Graco Silver Plus Series or Graco HD Texture spray guns are recommended.

SPRAY TIP

For best performance, use a .25 tip size.

BRUSH/ROLL APPLICATION

Premium latex paint brush or short pile roller can be used. Try to apply in one direction with the least amount of strokes possible. For best appearance please refer to airless sprayer application.

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SURFACE PREPARATION

STEEL

When using SC950 for steel applications an approved primer system must be applied over an abrasive blast cleaned steel substrate. For a list of approved steel primers, please contact your Flame Seal representative. Apply the primer according to the primer manufacturer's recommendations, and it must be fully cured before the application of SC950. Steel surface temperature must be a minimum of 5°F (3°C) above the dew point to minimize condensation from forming on the steel.

WOOD

Safely remove any old paint or varnish, and clean the substrate from dirt, grease, grim, and oils. Inspect wood substrates for best profile and porosity. Insure wood is at or below 12% moisture content, We recommend profiling the wood surface with abrasive methods, 80 -120 grit sandpaper and/or sand blast methods. Primers are also recommended for best bleed through prevention and adhesion. We recommend Flame Seal Pro Primer, or Sherwin Williams DTM Bonding Primer.

GYPSUM BOARD

Gypsum board is recommended to be clean from any dirt, grease, grim, and oils. Primers are also recommended for best bleed through prevention, absorption rate, and adhesion. PVA primer or Flame Seal Pro Primer is recommended. Flame Seal SC950 should be applied after tape and joint compound is applied and fully cured.

ENVIRONMENTAL CONDITIONS

Conduct environmental analysis to determine that the temperature, humidity, and dew point are within guidelines. The air temperature and surface temperature range must be between 50°F– 90°F; humidity 35% – 85%; conditions must be at least 5 degrees above dew point. If the environment is outside these requirements, introduce dehumidifiers, electric heaters, or moving fresh air exchange. These guidelines must be respected throughout the application and curing process.

WEATHER PROTECTION

SC950 must be protected from weather exposure during the application and while the product is curing. Tarps, heaters, and ventilators will help maintain proper substrate and ambient temperatures when needed.

CATCH COAT

Prior to the initial coat, apply a "catch coat" that is 5 -10 mils Wet Film Thickness (WFT), sufficient to cover the primer. The "catch-coat" must dry 1 to 2 hours under ideal conditions before subsequent coats can be applied.

HIGH BUILD COATS

When high build applications are required, use the recommended environmental condition chart below for an estimated recoat window. Prior to multiple coats ensure the previous coat is dry for best high build applications. Thinner coats compared to one thick coat will give greater control over the application and improve overall curing schedules.

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SUBSEQUENT COATS

A second coat of SC950 can be applied within one spray day, as long as a minimum drying time of 4 hours is allowed between coats. No more than two coats can be applied per spray day (24 hrs). The thickness of each coat is dependent on the humidity, air and steel temperature, and airflow.

ENVIRONMENTAL CONDITIONS FOR SUBSEQUENT COAT SCHEDULE	FIRST COAT HANGABILITY - WET MILS TO REACOAT IN 4 HOURS	MAXIMUM SUBSEQUENT COATS IN WET MILS
70°F (21°C) 50% R.H.	35-45 mils	35-45 Mils
55°F (13°C) 70% R.H.	20-35 mils	20-35 mils
85°F (29°C) 85% R.H.	30-40 mils	30-40 mils

**Curing times vary with temperature, ventilation, and humidity. Keep substrate temperatures above 50°F during and at minimum of 24 hours after application. Always follow the dew point rule (5°F above dew point). The lower the temperature the slower the curing process will be, higher temperatures will speed up the curing process. Additional ventilation can be added to expedite the curing process. For ideal curing, we recommend applying coats at 20-45 mils wet per coat. Material is ready to be top coated when an average Shore D hardness of 70 is achieved.

VENTILATION

There should be a minimum of 4 complete air exchanges per hour until the material is completely dry.

DRY TIME

Generally, SC950 is dry to the touch in 1-4 hours. Be sure to maintain temperature and humidity for 24 hours until Flame Seal SC950 is completely cured.

PRIMER INSPECTION (DFT)

Ensure the primer thickness has been measured or recorded prior to the application of SC950. The data will need to be subtracted at the end of the overall application of SC950 to confirm

WET FILM THICKNESS (WFT)

Use wet film thickness gauge during application, this will help overall consistency while applying the product. Ensure the previous coat is dry and hard, so that the teeth from the wet film thickness gauge are only picking up measurements from the freshly applied wet coat of SC950. Make sure the recorded primer is subtracted during and/or for the final SC950 DFT inspections.

DRY FILM THICKNESS (DFT)

Electronic DFT may be used in measuring dry film thickness. Multiple readings should be taken after SC950 is dried or sufficiently hard to allow the probe not to indent the surface. Reading can be taken at a minimum of 70 Shore D Hardness.

CLEAN UP

SC950 is a water based, latex paint. and can be cleaned up with soapy water (warm water is the most effective).