

APPLICATION GUIDE SC950 (IFRM)

PRODUCT DESCRIPTION

SC950 is an interior, 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 to enhance building design while reducing overall load structure. SC950 is tested under ASTM E119, ASTM E84, and CAN/ULC S101, CAN/ULC S102 testing methods to achieve ratings for 1-2 hours, and Class A flame spread and 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. FlameSeal SC950 certifications can be found in the ICC-ES.org reports directory under ESL-1296.

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

SC950 must be stored in a dry, temperature-controlled environment between 50°F (10°C) and 90°F (32°C). Exposure to temperatures at or below 32°F (0°C) may cause irreversible damage, including coagulation, separation, or loss of intended performance properties. Shelf life is one year from date of manufacturing when stored in proper conditions.

MIXING REQUIREMENTS

Jiffy styler mixers, or shielded spiral mixers are recommended. Mix thoroughly for 3-5 minutes. Ensure any material solids on the bottom and sides of pail are mixed in. Material must be homogeneous and free of lumps.

PUMP REQUIREMENTS

SC950 can be sprayed via electric, gas-powered, and pneumatic airless sprayers. See chart below for minimum requirements.

*NOTE -

REMOVE ALL PUMP MANIFOLD, GUN, AND HOSE FILTERS PRIOR TO SPRAYING. REPLACE THE STANDARD SUCTION TUBE WITH A GRAVITY-FED HOPPER ASSEMBLY FOR IMPROVED PERFORMANCE.

| ELECTRIC AIRLESS SPRAYER | GAS-POWERED AIRLESS SPRAYER | PNEUMATIC AIRLESS SPRAYER |
|-------------------------------------|--------------------------------------|--|
| Graco Mark V (or Equivalent/Higher) | Graco 7900 HD (or Equivalent/Higher) | Graco King XL70-180 (or Equivalent/Higher) |
| 1.35 GPM | 2.2 GPM | 2.9 GPM |
| 3300 PSI | 3300 PSI | 7250 PSI |

SPRAY GUN

Use a high flow, high pressure spray gun - ideally, with large fluid passages to prevent slow flow and/or clogs. Graco Silver Plus Series or Graco HD Texture spray guns are recommended.

SPRAY TIP

Minimum requirement is a .025 spray tip size.

BRUSH/ROLL APPLICATION

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

SURFACE PREPARATION

STEEL

When using SC950 for steel applications, an approved primer system must be applied. For a list of approved steel primers, please contact your FlameSeal representative. Follow primer manufacturer's guidelines on application and surface preparation, prior to SC950 application.

WOOD

Safely remove existing paint or varnish and ensure substrate is free from dirt, grease, grime, and oils. Inspect wood substrates for best profile and porosity. Ensure wood is at or below 12% moisture content. Profile the wood surface with abrasive methods if desired: 80-120 grit sandpaper and/or sand blast methods. Primers are also recommended for best bleed through prevention and adhesion. Please contact your FlameSeal representative for approved primers.

GYPSUM BOARD

Ensure substrate is free from any dirt, grease, grime, and oils. Use primers for bleed through prevention, absorption rate, and adhesion if desired. PVA primer or FlameSeal Approved Primer is recommended. FlameSeal SC950 should be applied after tape and joint compound is fully cured.

ENVIRONMENTAL CONDITIONS

Environmental guidelines must be followed throughout the application and curing process. Conduct environmental analysis to determine that the temperature, humidity, and dew point are within published parameters. The air temperature and surface temperature range must be between 50°F(10°C)– 90°F(32°C), humidity 35% – 85% and 5°F(3°C) degrees above dew point. If the environment is outside these requirements, introduce dehumidifiers or electric heaters. Ensure full air exchange and movement at all times.

ENVIRONMENTAL 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. A topcoat rated for the environmental conditions can be used, if desired.

CATCH COAT

Prior to the initial coat, apply a "catch coat" that is between 5-8 wet mils. It should be enough material to cover the primer. The "catch-coat" must dry 1 to 2 hours in environmental conditions listed above before subsequent coats can be applied.

APPLICATION GUIDE SC950 (IFRM)

HIGH BUILD COATS

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

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, airflow, and air and steel temperature.

| ENVIRONMENTAL CONDITIONS FOR SUBSEQUENT COAT SCHEDULE | FIRST COAT HANGABILITY - WET MILS TO RECOAT IN 4 HOURS | MAXIMUM SUBSEQUENT COATS IN WET MILS |
|---|--|--------------------------------------|
| 70°F (21°C) 50% R.H. | 35-50 mils | 35-50 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(10°C) during and at minimum of 24 hours after application. Always follow the dew point rule (5°F(3°C) 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. Material is ready to be top coated when an average Shore D hardness of 40-70 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 until Shore D hardness of 40-70 is achieved.

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 accurate coverage. Follow primer manufacturers guidelines for primer installation.

WET FILM THICKNESS (WFT)

Use wet film thickness gauges during application to ensure even coating.

DRY FILM THICKNESS (DFT)

Use an electronic DFT gauge to measure dry film thickness. Multiple readings should be taken to ensure consistent thickness.

CLEAN UP

SC950 can be cleaned with water (warm and soapy water is the most effective).