APPLICATIONS INSTRUCTIONS

Firefree 88® (“Ff88”) is a water-based latex fire resistant intumescent coating/paint, and its application is similar to applying a regular water-based latex paint (except for the thickness recommended by Firefree Coatings which needs to be precisely complied with for adequate performance). Ff88 is FM Approved www.fmapprovals.com, ICC Listed/Inspected, Classified by the Underwriters Laboratories (UL), and accepted by NY Material and Equipment Acceptance (MEA) Division. Firefree Coatings, Inc. is a member of NFPA, ICC and ASTM.

Ff88 is designed for interior use. However, Ff88 can be used for Exterior applications. **However, when Ff88 is used in such exterior applications it must be protected by Firefree Exterior (“FfE”) acrylic topcoat, see Exterior Application below.** There is no substitution of the FfE as this acrylic topcoat has passed the weatherization test (ASTM D2898, method B) over the Firefree intumescent coatings. **Any substitution of either Ff88 or FfE would void any warranty express or implied.**

**SURFACE PREPARATION**
Firefree 88 can be used as a primer on most surfaces. All surfaces to be coated must be clean, cured, firm, dry and free of dust, dirt, oil, wax, grease, mildew, loose flaking paint, efflorescence or any other contamination or condition that would adversely affect the performance of the coating. Etch or prime (with a latex primer or fast dry oil base primer/sealer) glossy, glazed or dense surfaces. Always prime oil-based finish coatings with fast dry primer/sealer. Fill holes and surface irregularities with a suitable patching compound to match surface profile. Spot prime all patched areas with appropriate primer. Do not commence work until such defects have been corrected.
- Metal and concrete surfaces must be primed.
- For enamel finish/oil: A surface testing is recommended. If necessary, apply one (1) coat of a latex primer/sealer before applying FF88.
- Glossy surfaces: Test for adhesion. If necessary, lightly sand or use etching liquid.
- Wall covering application: Apply one (1) coat of wall primer over product before applying wall covering.

**MOISTURE**
Measure the moisture content of surfaces using a moisture meter. Do not apply material to wood if the moisture content is more than 17%.

**TEMPERATURE**
Do not apply Ff88 if air temperature is below 45ºF (7ºC). Air circulation is important for applications above 45ºF (7ºC) and drying times will vary depending on existing environmental conditions.

**HUMIDITY**
We do not recommend applying the coating if relative humidity exceeds 75%. If exceeds, drying times may be extended. Make sure that each coat of Ff88 is thoroughly dry to the touch before applying the next coat.

**SAFETY**
Use personal protective clothing, including safety glasses to prevent any particles of paint from entering the eyes. Protective gloves are recommended for prolonged contact exposure. Respiratory protection is recommended, but not required; however, make sure plenty of ventilation is allowed when spraying.
APPLICATION METHOD
Ff88 can be applied by airless sprayer, roller, or brush. If you need to strain Ff88 only use a gauze the size used in fly screen doors. DO NOT THIN FIREFREE 88.

Spray-Airless: Capable of a pressure range of 780 to 3300 psi. Tip .015 to .023 heavy duty 4” to 12” (10.16 cm to 30.48 cm) fan width recommended.

Firefree 88 can be stirred with a paint wood-paddle (this is the similar procedure like paint). Apply at can consistency. Use of airless sprayer is recommended (use of a dedicated spray line is required)

Roller: Use a 1-1/4” (20-25mm) nap synthetic cover for heavy application. Other rollers may be used depending on desired finish.

Brush: For brush application, a nylon/fully loaded brush should be used. A laying on technique will reduce the brush marking.

MULTIPLE COATS
Make sure that each coat of Ff88 is thoroughly dry to the touch before applying the next coat.

COVERAGE
The recommended dry film thickness will determine the coverage rate. There is no set coverage rate that applies to all assemblies. The coating is made up of about 67% solids and thus, on average, the ratio of wet thickness to dry thickness is 1.5 to 1. Any consideration for quantity and waste or overspray is the sole responsibility of the end user. Waste factor will depend on the method of application (brush, roll or spray), job site conditions and other factors and should be based on the applicator’s experience.

WET FILM THICKNESS (WFT)
Always use a wet mil film gauge to measure each wet coat application. Each coat application can be built up to different levels of wet mil thicknesses using multiple passes of coating with an airless spray gun, brush, or roller. To measure the desired film thickness required, during application process, use a wet film thickness gauge to monitor the wet film thickness being applied.

DRY FILM THICKNESS (DFT)
The dry film thickness to be applied will be recommended by Firefree and will vary upon:
- the assembly make up
- the material/substrate being coated
- the fire rating being required.

The dry film thickness recommended by Firefree needs to be precisely complied with for adequate performance. The wet film thickness should be checked using a wet film thickness gauge. The final dry film thickness should also be verified per Third Party Inspection below.

Read instructions on gauge for proper use.
DRYING TIME
Drying times are dependent upon several factors: Temperature - Air movement - Humidity - Thickness of product - Method of application.

PAINTING OVER Ff88
Ff88 comes in a white, flat finish. If a different color or finish is desired, you can paint over Ff88 with most premium latex, acrylic or oil paints to achieve the desired color and finish. Please contact Firefree for more information.

EXTERIOR APPLICATION
When Ff88 is used in exterior applications it must be protected by Firefree Exterior (“FfE”) acrylic topcoat. There can be no substitution of FfE as this proprietary acrylic topcoat has passed the weatherization test (ASTM D2898, method B) over the Firefree intumescent coatings. Any substitution of either Ff88 or FfE would void any warranty express or implied.

PAINTED SURFACES & PRIMERS
When painting over existing painted surfaces, check for any reactions between FF88 coating and the existing paint, if any reaction should occur, apply a primer over the existing paint prior to applying FF88. For information on compatible primers, contact Firefree Coatings.

THIRD PARTY INSPECTION
All surfaces to which Ff88 have been applied should be inspected by an accredited special inspection agency, or ICC certified professional, or a Firefree Coatings QA/QC qualified inspector to verify that Ff88 has been properly applied in the required uniform film thickness. If an independent third-party inspector is retained, it should ensure that the wet to dry film thickness of the intumescent coating/paint complies with Firefree’s specifications/requirements.

MAINTENANCE
Surfaces which have been coated with Ff88 should be protected from abuse and abrasion. Damaged surfaces should be repaired and Ff88 should be reapplied to the original specified dry film thickness to maintain specific rating.

CLEAN UP
Wash brushes, rollers, spray guns & pumps and other painting tools in COLD clean water promptly after painting. Clean and remove any dried product. Use all products completely or dispose of properly. Local disposal requirements vary; consult your sanitation department or state-designated agency for more information on disposal options.

STORAGE & TEMPERATURE
Ff88 cannot be exposed to freezing temperatures. It is important to maintain storage temperatures above the freezing point. Ff88 should be stored at recommended temperatures between 50º F to 85ºF (10ºc to 29ºc). Expected shelf life: (2) years from the date of manufacture (DOM). Product must be kept at recommended storage conditions and in original unopened containers.

ABOUT THE COMPANY
FIREFREE Coatings, Inc is a privately owned company based in California. All products have been tested at accredited third-party IAS www.iasonline.org fire testing laboratories. Ff88 is FM Approved www.fmapprovals.com, ICC Listed/Inspected, Classified by the Underwriters Laboratories (UL), and accepted by NY Material and Equipment Acceptance (MEA) Division. Firefree Coatings, Inc. is a member of NFPA, ICC and ASTM.