

TECHNICAL DATA SHEET



FIREFREE 88®

Firefree 88®, a premium quality, water based, nontoxic, intumescent fire resistant coating

PRODUCT INFORMATION

Firefree 88® (“FF88®”) is a premium quality water based, nontoxic, thin film intumescent fire resistant product formulated to provide ratings required by the International Building Code (IBC) for walls, floor/ ceiling and ceiling assemblies and individual structural members. FF88® can be used to provide fire ratings in accordance with ASTM E 119 (measuring the ability to increase the time that a fire will take to penetrate a surface). In addition, FF88® has been tested to FM 4975, ASTM E 662-97, ASTM E 3675-98, ASTM E 162-98, ASTM E 1354-94, ASTM E 814, BS 476, EN13501-1, AS1530.4 etc.

RECOMMENDED FOR

Use on properly prepared uncoated, primed or previously painted surfaces. FF88® fire resistant coating can be applied to numerous materials, including sheetrock, wood, lathe & plaster, concrete, masonry, pressed metal tin, galvanized steel and aluminum, fiberglass, carbon fiber and other composite type materials for 1 & 2 hours and spray polyurethane foam (SPF) to meet the 15-minute barrier.

As a result of its' superior fire resistant performance, Firefree 88® can provide significant material and labor cost reductions, resulting in significant savings when compared to other construction options in situations such as retrofit, historical upgrades, defective construction or new construction.

Recommended for multifamily, industrial, commercial, schools, dormitories, assisted living, hotels, retail stores, restaurants, oil & solar industries.

LIMITATIONS

- Do not apply when air and surface temperatures are below 50°F (10°C).
- Do not apply on exterior surfaces without an acrylic top coat. Please call Firefree for additional information regarding weather exterior application procedures.

KEY FEATURES

- Easy to Use/Clean
- Non-toxic, low odor, eco-friendly
- Smooth architectural grade finish
- Provides fire ratings on a wide variety of substrates
- High Performance/Fully Tested
- Cost effective

TESTING LABORATORIES

Firefree coatings are tested to accredited IAS www.iasonline.org third party fire testing laboratories.

CERTIFICATIONS & COMPLIANCE

Qualifies for LEED v4 Credit	CDPH/EHLB Standard Method v1.2, 2017 Emissions	Meets VOC regulations (OTC, SCAQMD CARB)	Master Painters Institute® (MPI) Green Performance® GPS1/GPS2
YES	YES	YES	YES

- Firefree coatings may contribute up to five LEED points
- Tested by Independent ISO/IEC 17025 Accredited Laboratory
- MEA # 320-99 City of New York
- UL # R14654 Classified on OSB, Douglas fir
- FM Approved, per FM 4975
- Class 0, per BS 476 Part 6 & 7
- Class 1-S, per NZBC Verification Method

PRODUCT SPECIFICATIONS

Type: Liquid

Color: White

Finish: Flat 1.9-2.2 @60
.5-1@85

VOC: (test method ASTM D3960) <36 (g/L)

%Volume Solids: 67%

Viscosity (test method ASTM D-562): 115 @ 77°F(25°C) kU

Specific Gravity/Density, g/ml: (test method ASTM D1475) 1.293± 0.001

Divisions: 099643 Fire retardant coatings
099600 High performance coatings

Thinning: Not Recommended

Packaging: 5 gallon pails (60 lbs)

Shelf-Life: 2 years (unopened)

TECHNICAL SERVICES

Many building assemblies require an hourly fire resistant rating that is tested and rated in accordance to ASTM E-119 standard. If your project requires a fire resistant rating, please contact our Technical Department for advice before applying Firefree 88®. A technical service representative will assist you in determining the appropriate dry film thickness of the coating, call 888-990-3388 (U.S.), +1 415-459-6488 (outside U.S.), or info@firefree.com. **Building Codes:** Installation must comply with the requirements of applicable local, state and national building codes.

DRY FILM THICKNESS/SPREAD RATE

The dry film thickness applied will vary depending on the fire rating being



required and the material/ substrate being coated. There is no set coverage rate that applies to all assemblies. The Firefree 88® coating has a wet to dry ratio of 1.5 to 1. For example; 15 mils wet/10 mils dry, 30 mils wet/ 20 mils dry. **To measure the desired film thickness required, during the application process, use a wet film thickness gauge to monitor the wet film thickness being applied.**

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 thickness. If an independent testing agency is retained, it should ensure that preparation of substrate is in accordance with manufacturer's recommendations. It should randomly obtain and test samples during application to verify that wet/dry film thickness of the intumescent coating complies with Firefree's requirements.

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 an oil based fast dry primer/sealer. Fill holes and surface irregularities with a suitable patching compound to match surface profile. Spot prime all patches areas with appropriate primer. Metal and concrete surfaces must be primed.

For enamel, wall covering or glossy surfaces see following instructions: Enamel finish coats: Apply one (1) coat of a latex primer or fast dry oil base primer/sealer over FF88® before applying a latex enamel or oil base enamel finish coat.

Glossy surfaces: All surfaces should be dulled with sandpaper.

Wall covering applications: Apply one (1) coat of wall primer over product before applying wall covering.

APPLICATION INSTRUCTIONS

Do not apply if temperature is below 50°F (10°C). Do not thin or strain FF88®. Coating wood surfaces; the moisture content must be of 17% or less.

Apply at can consistency. FF88® has a flat finish but may be top coated with most paints to achieve the desired texture and finish.

For information on approved compatible primers, top coats and finish paints, please contact Firefree.

Apply additional finish coats only after previously applied coats are thoroughly dry.

Precautions: Do not apply any materials that have been frozen or have come into contact with contaminants prior to use.

Method of Application: Use of airless sprayer is recommended (use of a dedicated spray line is required), but FF88® may be applied by brush or roller. For brush application, a fully loaded brush should be used.

A laying on technique will reduce the brush marking. A short nap roller can be used but this may result in a slight textured finish.

RECOMMENDED EQUIPMENT

Roller: Premium Quality

Brush: Use a nylon/polyester brush.

Spray-Airless: Capable of a pressure range of 1500 to 3300 psi

Tip: .017 to .023 heavy duty 4" to 12" fan width recommended (dependant upon application)

Reduction: Do not thin

Drying time is when the surface is thoroughly dry to the touch. Drying times are dependent upon a number of factors: *Temperature - Air movement - Humidity - Thickness of product - Method of application.* During the drying process, FIREFREE 88® will shrink due to evaporation of water. If multiple coats of FF88® are required, each coat of FF88® must be thoroughly dry to the touch, before the next coat is applied.

Waste factor: 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, roller, airless sprayer), or job site conditions and the licensed painter contractor doing the work.

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 50 °F to 85°F (10°C to 29°C). Expected shelf life is two (2) years from the date of manufacture (DOM). Product must be kept at recommended storage conditions and in original unopened containers.

CLEANUP & MAINTENANCE

Wash brushes, rollers, spray guns & pumps and other painting tools in COLD clean water promptly after painting. Clean and remove any dried product with the use of Goof Off. 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. 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.

SAFETY

Use only with adequate ventilation. Do not breathe spray mist or sanding dust. Avoid contact with eyes and prolonged or repeated contact with skin. Wear eye protection and or gloves during application or sanding. A dust/particulate respirator approved by NIOSH should be worn when sanding or spraying. Close container after each use. First Aid: If you experience difficulty breathing, leave the area to obtain fresh air. In Case of Spill: Absorb with inert material and dispose of as specified under "Clean up and Maintenance".

ABOUT THE COMPANY

FIREFREE Coatings, Inc. is a private company based in California. All products have been tested at accredited third party IAS www.iasonline.org fire testing laboratories. FF88® is approved by FM Approvals www.fmapprovals.com and classified by the Underwriters Laboratories, listed by CA SFM Building Materials and accepted by NY Material and Equipment Acceptance Division. Firefree Coatings, Inc. is a member of NFPA, ICC and ASTM.

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