



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

TECHNICAL DATA SHEET

PRODUCT INFORMATION

Firefree 88® (“FF88®”) is a premium quality water based, nontoxic, non-conductive, thin film intumescent fire resistant product formulated to provide ratings required by the International Building Code (IBC) for wall assemblies, floor/ ceiling assemblies, roof/ceiling assemblies and individual structural members. Firefree 88® intumescent coating can be used as part of a system to provide the fire resistance ratings of building elements in accordance to fire test scope ASTM E 119 www.astm.org. In addition, FF88® has been tested to FM 4880, 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 USE

Use on properly prepared uncoated, primed or previously painted surfaces. FF88 fire resistant coating can be applied to numerous material substrates including gypsum board, wood, lathe and plaster, concrete, masonry, embossed tin, thin gauge metal, fiberglass, carbon fiber and other composite type materials where an increase in fire ratings, to meet ASTM E 119, 1 & 2 hour are required. Can be used on polyurethane foam to achieve a 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 many situations such as retrofit and historical upgrades, defective construction situations or in new construction. Recommended for multifamily, industrial, commercial, schools, dormitories, assisted living, hospice care, hotels, retail stores, restaurants, transportation, solar energy industries.

NOT RECOMMENDED FOR:

Use on Structural Steel
Exterior exposure without a topcoat. To obtain a list of exterior topcoats please call Firefree Coatings.

ADVANTAGES

- Easy to use, easy to clean
- Nontoxic, low odor, meets all VOC requirements
- Smooth architectural grade finish
- Provides fire resistant barrier on a variety of substrates
- Fully tested

PRODUCT CHARACTERISTICS

Type: Liquid
 VOC: <36 (g/L)
 Packaging: 5 gallon pails (60lbs)
 Shelf-Life: 2 years (unopened)
 Viscosity (Krebs Unit): 115 @ 77°F (25° c)
 Divisions: 078123 Intumescent fireproofing, 09967 Intumescent paint

Color & Finish: White, Flat
 Thinning: Not Recommended
 Flash Point: >250°F or >121°C
 Volume Solids: 68%

CERTIFICATIONS & COMPLIANCE

COMPLIES WITH BELOW AS OF 01/01/2014			
OTC	YES	CalGreen	YES
SCAQMD	YES	Leed NC-v2.2 EQc-4.2	YES
MPI#	YES	VOC	<36g/l

- Master Painters Institute MPI #64 Approved GPS 1, GPS-2 (Using Firefree 88® may help you qualify for certification points in green building programs)
- City of New York: MEA # 320-99 in accordance with code section 27-131 (ASTM E-84)
- UL Classified: File # R14654 in accordance with ASTM E-84 (UL 723) on OSB and Douglas fir
- FM Approved, per Approval Standard FM 4975
- BS476 Class O performance in accordance to the successful passing Part 6 & 7 testing.
- AS 1530.3 & 1530.4
- EN (PN) 13501-1

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 can assist you in determining the appropriate dry film thickness of the coating, call 415-459-6688 (U.S.) or +1 415-459-6488 (outside U.S.).

Building Codes: Installation must comply with the requirements of applicable local, state and national building codes.

TESTING LABORATORIES:

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

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.

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.



APPLICATION INSTRUCTIONS

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

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; FF88® must be thoroughly dry to the touch. If unsure, please contact Firefree.

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

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 patched 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.

CONDITIONS & PROCEDURES

Do not apply if temperature is below 50°F (10°C). All surfaces to which FF88® have been applied should be inspected by a third party special inspection agency, or an ICC certified professional, or a Firefree Coatings QA/QC qualified inspector to verify that FF88® has been properly applied in the required dry thin film uniform thickness.

Do not thin or strain FF88®. 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 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.

THIRD PARTY INSPECTION

All surfaces to which FF88® have been applied should be inspected by a third party special inspection agency, or an 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 manufacturer's requirements.

RECOMMENDED EQUIPMENT

Roller: Use standard industry rollers (please consult Firefree for roller instructions)

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 on application)

Reduction: Do not thin

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 and are approved by Factory Mutual 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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