

ForceField® FireGuard E-84® Intumescent Paint For Gypsum/ Wood/ OSB

Application Conditions

Generic Type Water-based intumescent coating designed for the fire

protection of interior gypsum and wood.

Description Thin film intumescent coating that creates a fire retardant

and fire resistant barrier on a wide range of interior building surfaces including gypsum, wood, and steel (see Techdata

sheet for steel).

Listed and certified by Guardian Fire Test Laboratories Inc.

Features -ASTM E-119 ASTM E-84 Tested

-Decorative Finish- Gives a smooth decorative finish.

-Can be top-coated to color choice.

- Smooth/ Flat surface

-Can be brushed on, rolled on, or sprayed on

-Durable finish- Provides a hard, impact and abrasion

resistant surface

-Topcoat finishes smooth

-Thin film coating- space saving smaller column footprints

-Low VOC content -LEED compliant

Color Finish White Smooth

Primers

Can be used as a finished coat or a primer.

Fireproofing Topcoats

for interior space a topcoat is

optional. The choice of topcoat will depend on project requirements and mil thickness of intumescent coating

Wet Film Thickness Up to 40 mils per coat

Dry Film

Up to 21.60 mils per coat

Solids Content

By volume 54%

Coverage rate

866ft² at 1mil 86ft² at 10mil 28.9ft² at 30mil

Allow for loss in mixing and application.

VOC Content

 $3.6 \, g/l$

Limitations

Not for use on exterior environments or for interior steelwork that will be exposed to freeze/thaw cycling or long-term

surface temperatures over 140°F (60°C) in normal use

Substrates & Surface Preparation

General

Prior to application surfaces need to be cleaned by removing all oil, grease or any loose particles that may interfere with

the bond of ForceField® FireGuard®.

On wood substrates wherer the wood is extremely old and dried out, it will be necessary to scrape off any old flaking of paint (if painted) and the surface primed before the

application of FireGuard E-84®.

Performance Data

Standards Tested To	Results	
ASTM 2768	Flame spread- 0 Smoke Index- 5	
ASTM E-84 (30 minute)		
ASTM E-119	1 & 2 Hour on gypsum and wood wall and floor/ceiling assemblies	
UL 263		
NFPA 251		
ULC-S-101		

Mixing & Thinning

Mixer

Use $\ensuremath{\ensuremath{\%^{\prime\prime}}}$ electric or air driven drill with a slotted paddle mixer

(300rpm under load).

Mixing

Fireguard® must be mixed using a $\frac{1}{2}$ " electric or air driven drill with a slotted paddle or jiffy mixer blade. Mix material for a minimum of 5 minutes to achieve the necessary texture

required before spraying.

Thinning

Do not thin.

Application Procedures

Brushed or Rolled

generally creates a 11 to 12 mil wet application.

Multiple coats will be required to meet

specifications to the job requirements. Allow each coat to completely dry to touch before applying

next coat.

Airless Spray

A single coat, built up with a number of quick passes, allows greater control over quantities, thickness and finish. In most conditions, it is advantageous to apply two thin coats rather than

one thick coat

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Application Procedures

Application Rates

At an ambient temperature of 70°F (21°C), the following application rates are applicable:

40 mils (1.14 mm) per coat (wet) 24 hour recoat time between coats

1 coat per day

*Fireguard can be recoated when previous coat has a shore D hardness of 50 measured at 70°F (21°C)

Wet Film Thickness

Frequent thickness measurements with a wet film gauge are recommended during the application

process to ensure uniform thickness

Dry Film Thickness

Final thickness can be measured using an electronic dry film thickness gauge. Positector 200 or equivalent may be used. Wet mil thickness dries to 54%. 20mil wet= 10.6mil dry

Application Equipment Guidelines

Listed below are general equipment guidelines for the application of this product when spray applied.

Airless Spray

Airlessco LP540 or equivalent

Spray Gun

Standard airless spray gun

Spray Tips

0.019"- 0.021"

Fan Size

4"-10" (depending on section being sprayed)

Hose Length

150' (45m)

Material Hose

3/8" (9.25mm) I.D. minimum

Whip Hose

¾" (6.35 mm) I.D minimum (optional)

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	70°F (21°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	100°F (38°C)	125°F (52°C)	110°F (43°C)	85%

Fireguard must be protected from exposure to weather. Protect from freezing.

Curing Schedule

Surface Temp. & 50 % Relative Humidity	Dry to Recoat
77°F (25°C)	24 Hours

It is recommended to apply one per day. Drying time will vary with temp. Thinner coats as well as air movement will help drying time. Another coat of Fireguard can be applied when previous coat has a Shore D hardness of 50 measured at 70°F (21°C). It can be top coated when a hardness of 60 is achieved.

Cleanup & Safety

Cleanup

Pump, Gun, Tips, Hoses, and Mixers should be cleaned one per

day with clean water.

Safety

It is recommended protective equipment should be worn when applying Fireguard®, including spray suits, eye protection, gloves, and respirators. Refer to Fireguard® Material Safety Data

Shoot

Ventilation

Ventilation should not be less than 4 complete air exchanges

per hour until the material is dry.

Maintenance

General

If coating becomes damaged, rebuild required thickness by spray, brush or roll. When dry smooth and finish with topcoat to match. Damaged areas must be abraded back to a firm edge by sanding or scraping. The topcoat should be abraded back 1" (25.4 mm) from the damaged area. The surface must be clean and dry before applying Fireguard E-84°.

Testing/ Certifications

Uncertainty Measurement in Guardian's fire testing is less than 1% as per ASTM E 2536-06.

Guardian is accredited and meets the requirements of ISO/IEC 17025 as verified by ANSI/ASQ. National Accreditation Board/ A CLASS. Refer to certificate and scope of accreditation report AT1247. Guardian also is accredited as an inspection agency per ISO 17020 through ANSI/ASQ. National Accreditation Board/ ACLASS, Report 1547.

N.B.: ANSI/ASQ/ACLASS is a signatory member of the International Laboratory Accreditation Cooperation's (ILAC) Mutual Recognition Arrangement (MRA).

ANSI/ASQ/ACLASS accreditation of Guardian ensures global recognition for Guardian's services.

Storage, Packaging & Handeling

Shelf Life

1 year from production date

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in unopened original container.

Shipping Weight

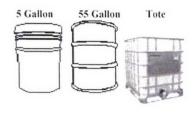
approximately 11 lbs per gallon (1.44 kg/l)

Storage

Store indoors in a dry environment between 33°F-100°F (1°C -

38°C). Protect from freezing.

Packaging



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