EFS - PDS

PRODUCT DATA SHEET
GRABBERGARD EFS

Description

GRABBERGARD EFS is a sprayable elastomeric latex-based firestop mastic coating. This high solids compound is designed to stop the passage of fires, smoke and fumes through fire rated assemblies. GRABBERGARD EFS spray or brush-applied coating has been formulated to adhere to all common construction materials. It has been tested in rated assemblies to provide firestopping protection from 1 to 4 hours. After it has fully cured, GRABBERGARD EFS elastomeric coating remains flexible to accommodate normal building movement.

Applications

GRABBERGARD EFS spray material provides an effective firestop for joints and gaps at the intersection of similar or dissimilar rated assemblies. (i.e. top of wall; floor to floor; floor to wall; wall to wall; floor/ceiling steel deck; assembly to gypsum wallboard and concrete walls). GRABBERGARD EFS is also used on pipes, cables, conduit and cable tray installations through floors and walls. It has an installation advantage over caulk material when the service penetrations are in larger openings. For these applications GRABBERGARD EFS can be applied using a brush or conventional airless spray equipment. To make certain installation is correct, consult manufacturer's current listings, as well as, Third Party published Fire Resistance Directories and/or their websites. GRABBERGARD EFS common uses and features are listed below:

Used on: Single and multiple penetrations

Metallic pipes
- Copper, steel, cast iron
- Conduits

Electrical cables and wires
- Jacket & non-jacketed

Cable trays

Construction joints/gaps
- Top-of-Wall
- Horizontal and vertical joints
- Curtain wall safing joints
- Perimeter floor joints
- Control joints
- Floor to floor joints
- Wall to wall joints

Voids

Features: Red Color

Non-toxic
Safe and easy to use
Easy clean up (Water Only)
Low volatile organic content (VOC)
No asbestos or PCB
Water resistance (when fully cured)
Mildew resistant (when fully cured)
Paintable (with latex based paints)
Easy and safe to apply
Adheres to dry or damp surfaces
Adheres to common construction substrate materials:
- Concrete
- Concrete block
- Steel deck
- Wood
- Gypsum wallboard

Up to 33% joint movement compression/extension
Remains flexible after fully cured

Advantages

Endothermic – When exposed to high temperatures or fire, GRABBERGARD EFS absorbs the heat and provides a fire barrier.

System Design

Whether for small or large joints, GRABBERGARD EFS spray is designed to be part of a multiple component system used with mineral wool and other damming materials. All these materials used in conjunction with one another maximize the firestopping characteristics.

Versatility

When applied properly, GRABBERGARD EFS will adhere to most common building materials. GRABBERGARD EFS bonds with dry or damp concrete as well as drywall, metals and wood. After GRABBERGARD EFS has fully cured it provides a strong bond, will not readily pull away and accommodates compressive and extension movement up to 33 per cent. GRABBERGARD EFS can be painted with a latex paint after it has completely cured.

Flexibility

When installed GRABBERGARD EFS caulk, when used in joints, accommodates up to 33 percent joint movement compression/extension. It remains flexible and fully resistant to water after curing.

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Limitations

Consult the Installation Instructions, Storage and Handling and Transportation Sections. Exposure to rain, running or standing water; before, the sealant is cured may cause the installed material(s) to wash out. The curing process occurs naturally through the evaporation of its water content into the atmosphere. Slower cure times may be experienced if the sealant is installed at low temperatures, damp and/or in high humidity environments. Any materials used in the firestop system for damming, insulation or support that may not allow for the free passage of air could result in longer curing times. The environment in which the compound is being used should be considered when estimating cure times. This product is not designed to be a waterproof seal and should not be installed where there will be constant wet conditions or immersed in water continuously.

Compliance/Approvals

GRABBERGARD EFS has been installed in many system designs and Third Party tested to meet or exceed the requirements of ASTM E 814, ASTM E 119, ASTM E 1399,UL 1479, UL 2079, ULC S 115-M95, ULC S 101, ASTM E 84. Construction joints recently tested in conformance with "Perimeter Fire Containment Systems" (assimilation of NFPA 285, ANS/UL 2079). Underwriters Laboratories (UL) and Intertek Testing Service (ITS) NA Ltd (Warnock Hersey) are third party fire endurance-testing agency accredited by ICBO, BOCA and SBCCI (NES) in the United States.

Additional Testing

GRABBERGARD EFS spray material becomes an integral component in a complete building system of walls, floors and ceilings. Its physical and chemical compatibility with other materials used in these complex configurations requires more than just the necessary firestop tests. The results of additional and extensive tests are listed in Table 1. GRABBERGARD EFS – Physical and Chemical Properties.

GRABBERGARD EFS spray has been tested and meets the classifications for less than 25 flame spread index and less than 50 smoke development index (NFPA Class "A", Building Code Class "1").

GRABBERGARD EFS has been tested for chemical compatibility with all types of metal and plastic pipes and plastic or nylon coated wires that are listed in the system designs.

Installation Instructions

GRABBERGARD EFS must be installed in compliance with a listed system design published by a third party testing agency (UL, ITS). Refer to their respective published Fire Resistance Directory or their web site.

Prep-work

To install properly, remove excessive dust, dirt, rust, debris, grease, oil and standing water. Atmospheric temperatures should be considered. If the product is colder than the recommended temperatures, warming before attempting to spray should be considered. In cold temperatures the building should be sealed or heat protected. The spray equipment should be clean of material from previous applications. GRABBERGARD EFS can also be applied with a brush.

Application

Insulation and backing materials should be installed in accordance with a published system design (i.e. type, density, compression and orientation). When spraying GRABBERGARD EFS use airless spray equipment that has min 3000psi capabilities and reversible spray tips. (Consult the manufacturer for more information on equipment setup, hose, spray guns, tips, etc.) To achieve a dry thickness of 60-mil (1/16 in.) GRABBERGARD EFS should be applied at 80-mil (1/12 in.). All research testing was performed using a Spray Tech EP2510 airless sprayer with: 50 feet of 3/8 in. hose, Graco Flex Plus spray gun, tip sizes from 0.019 to 0.031, fan with from 4 in. to 12 in. Do not apply GRABBERGARD EFS to mineral wool that is or was wet from exposure to water, standing water, rain or snow.

Caution: Mineral wool may cause eye, skin or respiratory tract irritation. Avoid contact with eyes, skin of clothing. Recommend using gloves and goggles. Refer to mineral wool manufacturer's Material Safety Data Sheets.

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Installation Temperature
For best results, installation temperatures should be between 43°-90°F(6°-32°C).

Maintenance
No special maintenance is required after the GRABBERGARD EFS sealant is installed and fully cured. If, after installation, the GRABBERGARD EFS sealant is damaged or cut, repairs should be made with the same sealant. GRABBERGARD EFS will form a full chemical bond and adhere to itself.

Manufacturer's Recommendations
The manufacturer recommends this product be installed by those trained in proper installation procedures (Approved Installer Card) and be able to read and understand a firestop system design listing (i.e. UL or WHi Listed System Design).

Storage and Handling

Keep product stored in a protected covered area in its original unopened containers. Manufacturer recommends storage temperatures to between 40°-90°F(4°-32°C).

DO NOT ALLOW TO FREEZE

Product may become damaged and unusable if exposed to extreme freezing conditions.

Do not dilute with water.

No mixing or stirring of the product is required.

Product has a shelf life of one(1) year. Stock rotation program is recommended.

Transportation

Product should be transported in a protection-equipped carrier when very low or high atmospheric temperatures will be experienced.

Recommended transportation temperatures should be between 40°-90°F(4°-32°C).

DO NOT ALLOW TO FREEZE

First Aid

In case of contact with eyes, flush with water and consult a physician. Skin contact, clean up thoroughly with water or soapy water. Consult a physician if eye or skin irritation develops or is persistent. SEE SDS FOR ADDITIONAL INFORMATION.

Availability

GRABBERGARD EFS spray is supplied in:

- 5 gallon (18.9L) tapered plastic pails

Coverage

Estimated product usage will vary depending on opening size and configuration. Check GRABBERGARD'S estimating charts for coverage.

Warranty

Grabber Construction Products will not accept liability for more than product refund. Any claim regarding product defect must be received in writing within 1 year from date of shipment. Grabber makes no other Warranty or Guarantee express or implied, including warranties of fitness for a particular purpose or merchantability. The seller shall assume no other liability for incidental or consequential damages arising out of the sale or use of this product.

Technical Services

For technical information and assistance regarding application information, code requirements and performance specifications:

Toll Free 1-866-237-GRAB(4722)
Web Site www.grabberman.com

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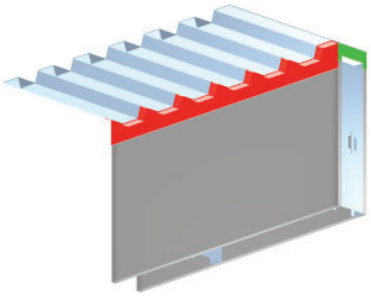
Table 1 – Physical and Chemical Properties

As Supplied

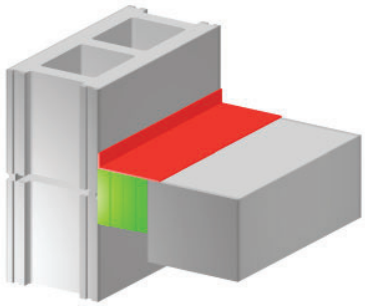
Type of Polymer	Waterborne Resin
Odor	Mild Latex
Solids Content (Wt%)	68±5%
Application Temperatures	43°-90°F(6°-32°C)
Viscosity (ASTM D-2196)	50000-60000cps
Color - (ASTM C-834)	Red
Specific Gravity - (ASTM D-1475)	1.15-1.35
Dry Time - (ASTM D-1640)	
Dry to touch @ 6mils	20-30 mins
Full Cure Time (depends on thickness & environment)	7-14 days
pH - (ASTM E-70)	8-9

As Cured

In Service Temperature	up to 120°F(49°C)
Volume Shrinkage - (ASTM C-1241)	Passed
Freeze/Thaw - (ASTM D-2243)	Excellent
Tensile Properties - (ASTM D-2370)	
Tensile Strength	28 psi
Maximum Elongation	1000%
Sag Resistance - (ASTM D-4410)	Passed
Surface Burning Characteristics - (ASTM E-84)	
Flame Spread Index	<25
Smoke Developed Index	<50
Joint Movement - (ASTM E-1399) (compression/extension)	Passed
Sprayability	
Fan Pattern	Excellent
Volume Output	Excellent
STC Sound Transmission Loss - (ASTM E-90)	59 Tested in a U411 Wall Assembly



Typical Head of Wall Joint



Typical Floor to Wall Joint