FIRESTOP SYSTEM
The Ultimate in Firestop Solutions and Fire Protective Coatings
## APPLICATIONS

### USES

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### APPLICATIONS

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**APPLICATIONS**

**USES**

- Electrical Box
- Firestop System
- No penetration
- Metallic pipe
- Plastic pipe
- Cable bundle
- Cable tray
- Insulated pipe
- Bursway
- Air duct
- Multiple penetration
- Joint systems
- Curtain wall
- Partition walls
- Putty pad
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Description

**Industry Leading Firestop Technology**, INSS1440 Fire Barrier Caulk is a single component water-based acrylic intumescent firestop sealant.

INSS1440 Listed designs use less product and offer exceptional performance, making it more cost effective than other traditional firestop caulking’s. The product’s fast expansion technology quickly fills voids, offering excellent protection from fire, heat transfer, smoke and gases.

INSS1440 is used for sealing gaps around single or multiple penetrations through interior walls and floors, or for sealing gaps around doors and window frames in critically fire rated structures.

INSS1440 Fire Barrier Caulk will adhere to most construction materials and penetrant items, is installation friendly, asbestos and halogen free, and can be painted after full curing.

Specifications

- **Specific Density:** 1.50 ± 0.1 g/cm³
- **Color:** Red, Gray
- **VOC:** 23 g/L
- **STC:** 64
- **Tack Free time:** 30 minutes
- **Curing time:** 7 – 21 days
- **Expansion rate:** 3 – 5 times
- **Application temperature:** 40° F – 104° F (5° C – 40° C)
- **In-Service Temperature:** -13° F – 176° F (-25° C – 80° C)
- **Storage Temperature:** 50° F – 95° F (10° C – 35° C)
- **Packaging:** 310 ml/Tube, 25 Tubes/CTN
- **20 fl. oz./Sausage, 20 Sausages/CTN**
- **1 gal/pail & 5 gal/pail**
- **Shelf Life:** 24 months
- **Performance:** 50+ years HOAC tested
INSS1440 Fire Barrier Caulk

Testing

- **ASTM E814** up to 3 hr F&T Rating
- **UL 1479** up to 3 hr F&T Rating
  - L Rating at Ambient – Less than 1 cfm/sq. ft.
- **ULC S-115** up to 3 hr F Rating
  - up to 2 hr FT Rating
  - up to 3 hr FH Rating
  - up to 2 hr FTH Rating
  - L Rating at Ambient – Less than 5.1 L/S/m2
- **FM Approved**
- **CNS 14514** up to 3 hr Class A&B
- **GB 23864**
- **ASTM E84** – Flame 5 Smoke 20
- **ASTM E662 & FAR 25.853**

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale and is dry and frost free.
3. Install the correct depth and compression of backing material, if required, as detailed within the applicable Listed system, allowing for sufficient depth of fill material.
4. Using a caulking gun, trowel or putty knife, apply INSS1440 fire barrier caulk into the seams, gaps or voids between forming material and floor or wall surface.
5. Tool the sealant surface smooth using a putty knife dipped in water, making complete contact with substrates to ensure an air and smoke tight seal.
6. Clean up, as necessary, with water.
7. INSS1440 fire barrier caulk cures by water evaporation and is not recommended for use in a wet environment.
**Description**

**Industry Leading Firestop Technology INSS2460 Fire Barrier Silicone Sealant** is a one-part, neutral-curing silicone sealant used to control the spread of fire, smoke, toxic gases, and water during fire conditions. INSS2460 offers exceptional performance and listed designs require less product, making it more cost effective than other traditional firestop silicone sealants.

INSS2460 is designed to seal the gaps around penetrations through fire-rated floors, walls or other assemblies as well as for sealing gaps around window and door frames in critically fire-rated structures.

INSS2460+ is a sprayable silicone based firestop sealant that offers excellent flexibility, is waterproof and tested for up to a 3 hour joint system in accordance with UL2079 and ULC-S115.

Both products adheres to most construction materials including concrete, stone, plaster, metals, glass and plastics. They are installation friendly, are asbestos and halogen free and ideal for interior and exterior use or where contact with moisture is a concern. Once fully cured, INSS2460/INSS2460+ offer excellent weathering characteristics including UV resistance, cold temperature flexibility, dry heat aging and resistance to chalking.

**Specifications**

- **Specific gravity:** 1.2 - 1.3g/cm³
- **Color:** Gray
- **VOC:** 53.20 g/L
- **STC:** 64
- **Tack-free time:** 30 minutes
- **Curing time:** 7-14 days
- **Shrinkage (weight):** 0.1%
- **Hardness (fully cured):** SHORE A 30° - 40°
- **Application temperature:** 40° F - 104° F (5° C - 40° C)
- **In-Service temperature:** -13° F - 176° F (-25° C - 80° C)
- **Storage temperature:** 50° F - 95° F (10° C - 35° C)
- **Shelf Life:** 12 months
- **Packaging:**
  - INSS2460- 310 ml/Tube, 25 Tubes/CTN
  - 20 fl oz./Sausage, 20 Sausages/ CTN
  - INSS2460+ 1 gal/pail & 5 gal/pail
- **Performance:** 50+ years HOAC tested
Limitations
Not for use in areas immersed in water. The sealant can only be removed mechanically once cured.
This product is NOT intended for use in fire rated construction.

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Prior to applying, clean the surface of the opening and any penetrating items to allow for proper adhesion. Use mineral spirits or similar product to clean surfaces (Do not use alcohol). Ensure that the surface of the substrates is dry and frost free.
3. Install the correct depth and compression of backing material, if required, as detailed within the applicable Listed system.
4. INSS2460 can be installed with a caulking gun, putty knife or trowel. INSS2460+ can be applied by airless sprayer.
5. Install the applicable depth of INSS2460/INSS2460+ into the opening flush with the surface of the substrate, or as detailed within the Listed system to meet the required assembly rating.
6. Tool the sealant surface smooth using a putty knife dipped in water making complete contact with substrates to ensure an air and smoke tight seal.
7. Using mineral spirits, clean all tools and flush spray equipment immediately after use.

Testing

INSS2460
UL 1479 up to 3hr T, F and L Rating
ULC S-115 up to 3hr FTH Rating
CNS14514 3hr Class A and B
FM approved
GB23864
ASTM E84 – Flame 5 Smoke 45
ASTM E662 & FAR 25.853
ASTM D412 – 265% Elongation 42% Compression
ASTM C719 – Cyclic Joint Movement 50%
ASTM C793 – Accelerated Weathering

INSS2460+
UL 2079
ULC S -115
INSS1186 Elastomeric FireCaulk

Description
Industry leading Firestop Technology, INSS1186 Elastomeric FireCaulk is a water based acrylic elastomeric fire rated caulk that offers excellent fire protection and flexibility, even after full curing.

Curtain Wall
INSS1186 is tested in accordance with ASTM E2307 providing a 3hr fire rating and 2 hr smoke rating on 100% vision glass curtain wall.

Joint Systems
INSS1186 is also tested in accordance with UL 2079 and ULC S-115 for use in dynamic construction joint system, such as Head of Wall, Wall to Wall, Floor to Wall and Floor to Floor joints.

INSS1186 can be applied by brush, bulk caulking gun, trowel or airless sprayer. It is compatible with and adheres to common construction materials and withstands compression and extension in dynamic joints.

INSS1186 Elastomeric FireCaulk is a water based, low VOC, halogen, asbestos and organic solvent free product.

Meets the intent of LEED® VOC environmental air quality requirements.

Specifications
Density: $1.5\pm0.1 \, \text{g/cm}^3$
Solid Content (by weight): 75%
VOC: 4 g/L
STC: 63
Dry to Touch: 30 minutes
Curing Time: 3-7 days depending on thickness and ambient conditions.
Application Temp: 40° F - 104° F (5° C - 40° C)
In-Service Temp: -13° F - 176° F (-25° C - 80° C)
Shelf life: 24 months
Maximum cyclic displacement: $\pm12.5\%$
Storage Temperature: 50°F - 95° F (10° C - 35° C)
Packaging: 20 fl. oz./Sausage, 20 Sausages/CTN
310ml/ tube, 25 Tubes/ CTN
1 G/Pail, 5G/Pail
Performance: 50+ years HOAC tested

Applications
- Fill, void or cavity material.
- For use in through-penetration firestop and joint systems.
INSS1186 Elastomeric FireCaulk

Testing

ASTM E2307 3hr F Rating 2hr T Rating at 8" Nominal Joint
+/- 5% vertical and +/-12.5% horizontal Cyclic Movement

ANSI/UL 2079 3 hr Rating at 4" Nominal Joint
L Rating At Ambient — Less Than 1 CFM/ Lin Ft

CAN/ULC S115 3 hr FTH Rating at 4" Nominal Joint
L Rating at Ambient — Less than 1.55 L/S/m²

ASTM C 719 Cyclic Movement 12.5%
Movement capability 8% compression or extension (Class II or III)

ASTM D4587 Extended Weathering

ASTM-E84 Flame 0 Smoke 5

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies and specific installation instructions.

2. Remove surface contaminants such as dirt, oil, rust or other previous adhesive, to ensure a clean surface for excellent adhesion.

3. Mineral wool batt may be required in joint systems. Install min 64 kg/m³ (4 pcf) mineral wool batt insulation in joint opening as a permanent form. Install edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 60 percent in thickness and flush with bottom surfaces of the floor.

4. Using airless sprayer or brush, apply required wet thickness of INSS1186 to completely cover top surface of mineral wool and lap additional 2 mm (5/64 in.) thick by min 25 mm (1 in.) onto each edge of substrate. Product can be applied to vertical or horizontal surfaces. To avoid sag when applied to vertical surfaces, install 2–3 thinner applications until required depth is achieved, allowing it to cure slightly between coats.

5. Trowel by using a mason's trowel or putty knife as needed.

6. Full curing may take 3–7 days, depending on the applied thickness and ambient condition. Avoid contact with moisture prior to full curing.
**FM012 Firestop Putty**

**Description**

FM012 Firestop Putty is an industry leading elastomeric paste, with fast reacting intumescent properties, designed to seal gaps around throughpenetrations and block the passage of flame, toxic fumes and smoke. FM012 Firestop Putty's Listed designs offer exceptional performance and use less product, making it more cost effective than other traditional firestop putties.

FM012 Firestop Putty is used to protect penetrations such as cable bundles, conduits, metallic pipes, plastic pipes, busways and air ducts with up to a 3-hour fire resistance rating.

FM012 is highly intumescent, offers rapid expansion and high volume char, has excellent elasticity, is easy to install and will not sag in vertical applications. Completely halogen and asbestos free, it does not contain organic solvents.

Meets the intent of LEED® VOC environmental air quality requirements.

**Specifications**

- **Density:** 1.35-145 g/cm³
- **Color:** Red
- **VOC:** 11.50 g/L
- **Curing Time:** 7-14 days
- **Application Temp:** 40° F - 104° F (5° C - 40° C)
- **In-Service Temp:** -13° F - 176° F (-25° C - 80° C)
- **Storage Temp:** 50° F - 95° F (10° - 35° C)
- **Shelf life:** 24 months
- **Package:** 310 ml/Tube; 25 Tubes/CTN; 20 fl oz./Sausage; 20 Sausages/CTN; 5Kgs/Pail, 20Kgs/Pail
- **Performance:** 50+ years HOAC tested
Testing

- ASTM E 814 2hr F and T Rating
- UL 1479 2hr F and T Rating
- FM Approved
- ASTM E84 Flame 0 Smoke 25
- CNS 14514 3hr Class A
- GB 23864
- ASTM E662

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale and is dry and frost free.
3. Install the correct depth and compression of forming material, if required, as detailed within the applicable Listed system. Allow for sufficient depth of fill material.
4. Using a caulking gun, trowel or putty knife, apply FM012 into the seams, gaps or voids between the penetrant and edge of annular space.
5. Tool the sealant surface smooth using a putty knife dipped in water, making complete contact with substrates to ensure an airtight/smoke tight seal.
6. Clean application tools with water.
7. FM012 firestop putty cures by water evaporation. It is not recommended for use in a wet environment.
INSS0285 Smoke & Acoustic Sealant

Description
INSS0285 is a high performance acrylic based sealant for sealing construction joints and through penetrations in non fire-rated assemblies.

Applications
Reducing the transmission of sound through wall openings.
Stopping the passage of smoke in smoke barrier walls.
Stopping air leakage to reduce the passage of dust and airborne infectious particles.

Features
• Low VOC, single component
• Excellent caulking and spraying properties
• Silicone, halogen, asbestos and solvent free.
• Excellent airborne sound insulation.
• Smoke and fume resistant.
• Easy clean up with water.
• Low volume shrinkage.
• Paintable.
*Available in caulking and sprayable grades.

Technical Data
Color
White

Chemical basis
Water based acrylic dispersion

Density
1.6 ± 0.1 g/cm³

Skin-forming time
Approx. 25 min

Curing time
3mm/3days (@ 25°C/ RH50%)

Elongation at break
300%

Typical thickness temperature
1mm WFT = 0.7mm DFT

Application temperature
40° F - 104° F (5° C - 40° C)

In-Service Temperature
-13° F - 176° F (-25° C - 80° C)

Storage Temperature
50° F - 95° F (10° C - 35° C)

Mold and mildew (ASTM G21)
Mold resistant (Class 0)

Volume Shrinkage (ASTM C1241)
22.3%

VOC
42g/L

Surface burning characteristics
Flame spread: 0
Smoke development: 5

STC Rating
63 (per construction type)

Packaging
310ml/Tube; 25 Tubes/CTN
20 fl oz./Sausage;
20 Sausages/CTN
5Gal./Pail (SPRAYABLE)
Installation Guide (Caulking Type)
1. Application substrate should be cleaned of loose debris, dirt, oil, wax, grease and other contaminants the surface must be moisture and frost free.
2. Install backing material as needed. The depth of the joint should be 1/4” (6 mm) minimum to 3/8” (9 mm) maximum. Sealant can be applied with standard or bulk caulking guns, manual trowel or spray application. Apply sealant in opening and work into all areas eliminating voids or seams and making complete contact with substrate.

Spraying guide (Spray Type)
1. Mix INSS0285 SPRAY thoroughly using a power agitator before application. Thinning is normally not required, if necessary, use potable water (3% max.) to adjust viscosity.
2. Apply via airless spray equipment in a single pass not more than 1 mm WFT to prevent sagging.
3. Recommended sprayer:
   Model: Graco 1095 (3300psi)
   Filter in machine: 60 mesh
   Filter in spray gun: 100 mesh
   Tip: 517~523
4. Recommended application temperature shall be between 5~40°C (40~104°F).
5. Do not allow the sealant material to remain in hoses, gun or spray equipment when not in use. Clean all equipment with water immediately after use.
6. All unused sealant should be stored in tightly closed container. Surface skinning may occur in a partially filled container in which case filter the material prior to use.
7. Wet film thickness approx. 1 mm cures to 0.64 mm dry film. Thickness measurement – wet film thickness of sealant layer can be measured using a wet film thickness gauge. The dry film thickness can be verified using calipers or micrometers.

Limitations
• Not for use in areas immersed in water. The sealant can only be removed mechanically once cured.
• This product is NOT intended for use in fire rated construction.
FM011 Moldable Firestop Putty

**Applications**

- Cable Bundle
- Cable Tray
- Plastic Pipe
- Metallic Pipe
- Airduct
- Insulated Pipe
- Multiple Penetrations

**Description**

*FM011 Moldable Firestop Putty is an industry leading,* one-part, flexible, intumescent putty ready-to-use for wall or floor openings containing cable trays, cable bundles, plastic pipes and/or conduits providing up to a 3-hour fire resistance rating.

Highly intumescent, and providing rapid expansion and high volume char, FM011 will control the spread of fire, smoke, gases and heat transfer. Its superior elasticity makes FM011 easy to install.

FM011 Moldable Firestop Putty is halogen, asbestos and organic solvent free, will not coagulate and is re-penetrable and reusable. It provides excellent adhesion to a full range of construction substrates and penetrants.

Meets the intent of LEED® VOC environmental air quality requirements.

**Specifications**

- **Specific Density:** Approx. 1.25 - 1.35 g/cm³
- **Color:** Black
- **VOC:** 16.1 g/L
- **STC:** 64
- **Installation Temp:** 40°F - 104°F
  \( (5°C - 40°C) \)
- **In-Service Temp:** -13° F - 176° F
  \( (-25° C - 80° C) \)
- **Storage Temp:** 50° F - 95° F
  \( (10° C - 35° C) \)
- **Elasticity:** > 40%
- **Expansion Temp:** 220° C
- **Expansion Rate:** 5-10 Times
- **Shelf life:** 24 months
- **Packaging:**
  - 10 pcs/CTN (2kg/pcs)
  - (Pads) 20kgs
  - 12 pcs/CTN (0.4kg/pcs)
  - (Bars) 4.8kgs
  - 1 Bar - 240mm x 40mm x 30mm (L x W x H)
    - (Coverage: 17.57 inch³)
  - 1 Pad - 300mm x 400mm x 15mm (L x W x H)
    - (Coverage: 109.84 inch³)
- **Performance:** 50+ years HOAC tested
Testing

UL 1479 3hr F & T Rating
  L Rating at Ambient - Less than 1 cfm/sq ft.
ASTM E814 3hr F & T Rating
CAN/ULC S115 2hr FTH Rating
FM Approved
CNS 14514 3hr Class A & B
GB23864
ASTM E84 Flame 0 Smoke 5
ASTM E662 & FAR 25.853

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale and is dry and frost free.
3. Install the correct depth and compression of backing material, if required, as detailed within the applicable UL, FM or CNS listed system.
4. Simply tear off required amount of putty and plug into the gap or void around the penetrants.
5. Smooth by hand, making complete contact with the substrates to ensure an airtight/smoke tight seal.
Putty Pad

Description
Putty Pad is a moldable fire-rated intumescent putty material. When exposed to heat or flame, Putty Pad’s quickly form a carbon char barrier which prevents the spread of flames, smoke, and toxic gases through openings in fire rated walls and partitions. Putty Pad is specifically designed to protect openings created by electrical boxes to restore up to 2-hours of fire resistance. Available in 9” x 9” pads for quick, easy install and can be cut to fit or ganged up to meet various sized electrical boxes.

Characteristics and Features
- Easily installed by hand, reusable and re-penetrable
- Wall opening protective tested up to 2 hours in accordance with UL 1479 (category CLIV)
- Single & multi-gang metallic boxes up to 14” (356 mm) long
- Plastic & steel faceplates
- 1 & 2 hr wood or steel stud walls
- Provides draft and smoke seal
- Excellent sound insulation properties
- Non-halogenated, Asbestos free, Low VOC
- Highly intumescent when exposed to fire

Properties
Color: Black
Appearance: Semi-Solid, moldable
Thickness: 3/16” (5mm)
Expansion rate: 5~10 times
Percent Solids: 100%
VOC: 0 g/L (0%)
Storage Temperature: 5°C (41°F) to 45°C (113°F)
Application Temperature: -10°F (~23 °C) to 120°F (49°C)
Mold and Mildew (ASTM G21): No Growth
ASTM E84: 0 Flame 0 Smoke
STC Rating (ASTM E90): 63 (per construction type)

Storage and Handling
Putty Pad should be stored between 41°F(5°C)~113°F(45°C) in dry locations and under protective cover in their original container. Putty Pads have a minimum 2 year shelf life. If product freezes, thaw and examine completely before use.

Limitations
Not intended for continuous use underwater. Do not immerse in organic solvent.

Packaging
9.00” x 9.00” x 3/16” (229 x 229 x5mm)/Pad, 20 Pads/Ctn
## Installation Instruction

Putty Pad for use with UL Listed Metallic Outlet Boxes installed with plastic or steel cover plates in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400, V400, or W400 Series Wall and Partition Designs in the Fire Resistance Directory.

Always refer to applicable local building regulations to ensure the listed system details are applicable.

Surfaces to be covered must be clean. Oil, grease, and dirt should be removed with dry rags prior to putty pad installation. To ensure adhesion the substrate must be dry and frost free.

1. **Remove film from putty pad**

2. **Apply the pad to the stud side of the box partially overlapping the stud and press to adhere. Smooth the pad across the box to the opposite side, overlapping around all sides. Ensure complete contact with all sides and penetrating items.**

3. **If gypsum board is installed, pack putty into gaps between box and gypsum board slightly overlapping inner wallboard surface. If gypsum board is to be installed after pad installation, overlap front edge of box so that putty will be compressed around edges of box as gypsum board is installed. Cut slits in pad to fit around conduit or cables.**

4. **Press pad to surface of top, bottom and sides of box.**
INFS0812 Intumescent Strip

**Description**

INFS0812 Intumescent Strips are quickly and easily installed providing a convenient solution for firestop contractors. Providing high expansion rate and volume means that the INFS0812 design requires less strips to seal the openings, making it more cost effective than other traditional firestop intumescent strips.

INFS0812 Intumescent Strips expand when heated and maintain a tight seal. When used with combustible penetrants such as plastic pipe, INFS0812 blocks the spread of fire, smoke, toxic gases, even as the penetrant is consumed by fire.

INFS0812 Intumescent Strips are also used in conjunction with our SSCI Firestop Collar to tightly seal any opening that is created as a combustible item is consumed by fire.

Meets the intent of LEED® VOC environmental air quality requirements.

**Specifications**

| INFS0812: | 5mm x 60mm x 2M |
| Color: | Black |
| Expansion rate: | ≥20 times |
| L.O.I: | ≥40 |
| In-Service Temperature: | -13° F - 176° F (-25° C - 80° C) |
| Storage Temperature: | 40° F to 104° F (5° C to 40° C) |
| Environmental Aging as per UL 1479: | Pass |
| Accelerated aging (158± 5°F for 270 days) | Pass |
| High humidity (97-100% RH & 95 ± 3°F for 180 days) | Pass |
Testing

**ASTM E 814 up to 3 hr F and T Ratings**

**UL 1479 3 hr F and T Ratings**
- L Rating at Ambient – Less than 1 cfm/sq. ft.

**CAN/ULC S115 2 hr FTH Ratings**
- Meets 50 Pa requirement

**FM Approved**

**ASTM E 84 – Flame 0 Smoke 0**

**CNS 14514 3 hr Class A and B**

**GB 23864**

**ASTM E662 & FAR 25.853 (1998)**

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale.
3. **If Required** - Install min 4pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form, as detailed in Listed system.
4. The required number of layers of wrap strip are to be individually and tightly wrapped around each nonmetallic through penetrant and secured together by means of AL-foil tape.
5. Wrap strip shall be butted against floor bottom or both surfaces of wall, or as detailed in Listed assembly.
6. Seal penetration against smoke using INSS1440 or INSS2460 Sealants.
**Description**

Industry leading Firestop Technology, SSCI Firestop Collar is a stainless steel collar intended to be used in conjunction with INFS0812 Intumescent Strip to tightly seal any opening that is created as a material is consumed by fire. This combination will restore the fire resistance rating of walls, floors and seals against the passage of flames, toxic fumes and smoke. INFS0812 Strip and SSCI Firestop Collar are designed to make installation quick and easy.

SSCI and INFS0812 Fire designs require less product and offer exceptional performance, making SSCI and INFS0812 more cost effective than other traditional firestop collars and strips.

SSCI is intended for penetrating items such as non metallic pipes, plastic pipe, and insulated pipes.

**Specifications**

- **In-Service Temperature:** -13° F - 176° F (-25° C - 80° C)
- **Storage Temperature:** 40° F - 104° F (5° C - 40° C)
- **Performance:** 50+ years HOAC tested

SSCI is available in all standard pipe sizes or in a bulk kit that can be cut to be fitted on site by the applicator.

| Nominal size of pipe  | 2" | 3" | 4" | 5"- 6" | 7"- 8" | 9" - 12"
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</table>
SSCI Firestop Collar

Testing
ASTM E 814 up to 3 hr F and T Ratings
UL 1479 3 hr F and T Ratings
L Rating at Ambient – Less than 1 cfm/sq. ft.
CAN/ULC S-115 2 hr FTH Ratings
Meets 50 Pa requirement
FM Approved
ASTM E 84 Flame 0 Smoke 0
CNS 14514 3 hr Class A and B
GB 23864
ASTM E662 & FAR 25.853

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale.
3. Release hose clamp screw and disassemble the SSCI-X Firestop Collar.
4. Individually or continuously wrap the required number of wrap strips around penetrant and hold in place with AL foil tape.
5. Wrap strip shall be butted against floor bottom or both surfaces of wall.
6. Install SSCI collar around wrap strips and secure with hose clamp.
7. Install the required number and type of anchors as detailed in the listed system.
FP-02 Firestop Sheet

Applications

Description

FP-02 is an industry leading Firestop Sheet fabricated by bonding proprietary intumescent materials to a metal sheet. FP-02 securely blocks flame and is designed to seal large penetrations through fire-rated walls and floors. It is also used for shielding cable trays, conduit, HVAC and vital process equipment from radiant heat, flame spread and smoke.

FP-02 Firestop Sheet steel backer provides structure to the assembly making a safe firestop solution for floor openings. Easily re-penetrable and repairable with a common hole saw, it is the most cost effective solutions for large openings on the market today.

FP-02 Firestop Sheet is easily trimmed to different sizes to fit any installation or large openings and works with nearly all construction materials. It is halogen and asbestos free, is very stable and maintenance free.

Meets the intent of LEED® VOC environmental air quality requirements.

Specifications

- Size: 90cm x 90cm
- Thickness: 7.7 ± 1.3 mm
- Weight (per sheet): Approx. 13 Kg
- Expansion Rate: 5 - 10 Times
- In-Service Temp: -13° F - 176° F (-25 °C - 80° C)
- Packaging: Single sheet
Testing
ASTM E814 up to 2 hr F Rating
UL1479 2hr F rating
ASTM E84 – Flame 5 Smoke 90
CNS 14514 2 hr Class A & B
FM Approved
GB 23864
ASTM E662

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale.
3. When max opening dimensions exceed 20 in. (508mm) in both width and length, two minimum 2 x 2 in. (51 by 51 mm) by No.10 gauge galvanized steel angles shall be installed within the longest dimension of the opening, with one angle flush with both top or bottom of floor or both surfaces of wall. These angles provide a framing member for intermediate securement of the firestop sheet.
4. FP-02 Firestop Sheet is to be installed to lap a minimum of 2 in. (51 mm) on all sides of the through opening and with the aluminum foil facing against the surface of the floor (galvanized steel plate side outwards).
5. Apply a min 3/8 in. (10 mm) thickness of INSS1440 around the periphery of each firestop sheet prior to securing it to the floor or wall. In addition, min 3/8 in. (10 mm) bead of sealant applied at the periphery of the through penetrant/firestop sheet interface on both sides of the floor or wall.
6. FP-02 Firestop Sheet is to be secured to the top surface of floor using min 3/16 in. diam by 1-1/2 in. (5 mm by 38 mm) long steel expansion bolts in conjunction with min 1-1/4 in. (32 mm) diam steel fender washers. Max spacing of fasteners not to exceed 6 in. (152 mm) OC.
7. All wall openings require installation of FP-02 Firestop Sheet and putty/ sealant on both sides of the wall.
FP-04+ Firestop Sheet

Description

FP-04+ is an industry leading Firestop Sheet fabricated by bonding proprietary intumescent materials to a metal sheet. FP-04+ securely blocks flame and is designed to seal large penetrations through fire-rated walls and floors. It is also used for shielding cable trays, conduit, HVAC and vital process equipment from radiant heat, flame spread and smoke.

FP-04+ Firestop Sheet is thinner than our FP-02, providing a more cost effective solution for double-sided applications such as walls. It is easily re-penetrable and repairable with a common hole saw and can easily be trimmed to different sizes to fit any installation or large openings, working with nearly all construction materials. It is halogen and asbestos free, is very stable and maintenance free.

Meets the intent of LEEDS® VOC environmental air quality requirements.

Specifications

- Size: 90 cm x 90 cm
- Thickness: ≥ 2 mm
- Weight: 7.8 Kg/Sheet
- Expansion rate: 10 Times
- In-Service Temp: -13° F - 176° F (-25° C - 80° C)
- Packaging: 4 Sheets per Pkg
- Largest Listed opening: up to 74 square feet
- Performance: 50+ years HDAC tested
FP-04+ Firestop Sheet

Testing

ASTM E 814 up to 3 hr F and T Rating

UL 1479 3 hr F and T Rating
  L Rating at Ambient – Less than 1 cfm/sq ft.

ULC S-115 up to 3 hr F Rating
  Up to 1 1/2 hr FT Rating
  Up to 3 hr FH Rating
  Up to 1 hr FTH Rating
  L Rating at Ambient – Less than 5.1 L/Sm²

ASTM E84 Flame 5 Smoke 90

FM Approved

CNS 14514 3 hr Class A&B

GB 23864

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale.
3. When max opening dimensions exceed 20 in. (508mm) in both width and length, two minimum 2 x 2 in. (51 by 51 mm) by No.10 gauge galvanized steel angles shall be installed within the longest dimension of the opening, with one angle flush with both top and bottom of floor or both surfaces of wall. These angles provide a framing member for intermediate securement of the firestop sheet at both surfaces of opening.
4. Cut sheet to an overall rectangular size such that it overlaps the floor or wall around the periphery of the opening according to Listed system. Cut sheet to fit the contour of the through penetrants within the opening.
5. Apply a min 3/8 in. (10 mm) thickness of INSS1440 around the periphery of each firestop sheet prior to securing it to the floor or wall. In addition, min 3/8 in. (10 mm) bead of sealant applied at the periphery of the through penetrant/firestop sheet interface on both sides of the floor or wall.
6. Install firestop sheet with intumescent bonded layer exposed, install sheet on both surface of wall or floor opening as per Listed system.
7. Secure sheet to wall of floor surface using the require number and spacing of fasteners as detailed in the Listed system.
FP05 Coated Firestop Board

Description

Industry leading Firestop Technology, FP05 Coated Firestop Board is a 50mm thick high-density mineral fiberboard coated with GC99-20 Fireproof Coating used to create a fire barrier system, which can restore up to 2 hours fire rating. In case of fire, the coated surface of Firestop board will expand up to 30 times, reducing the spread of fire and smoke.

FP05 offers exceptional performance, is easily cut to fit on site and factory-metered doses of coating assure inspectors the correct amount has been applied, making FP05 more cost effective than other traditional firestop solutions.

FP05 is odorless, non halogenated and low VOC. When installed according to our Listed systems, it will restore the STC rating and provide an air-tight, smoke-tight firestop assembly.

Meets the intent of LEED® VOC environmental air quality requirements

Specifications

Color: White
Size: 1200 X 600 X 50mm
Bending Strength: ≥0.1 Mpa
Density: 160Kg/m³
In-Service Temp: -13° F - 176° F (-25° C - 80° C)
Application Temp: 40° F - 104° F (5° C - 40° C)
Package (FP05) 4 Pieces/Case
Package (GC99-20) 1 Gal/Pail
FP05 Coated Firestop Board

Testing
ASTM E814 2 hr F & T Rating
UL 1479 2 hr F & T Rating
CAN/ULC S-115 2hr FTH Ratings
FM Approved
ASTM E84
GB 23864
ASTM E662

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Clean surfaces of the opening and all penetration items to ensure adhesion. Opening must be dry, frost free and void of any grease and dust.
3. Minimum 1/8 in. (3.2 mm) wet thickness of INSS2460 shall be applied to the interior surfaces of the opening to a min height of 1-1/2 in. (38 mm) on both sides of the floor or wall. Prior to the installation of FP-05, a min 1/8 in. (3.2 mm) wet thickness of sealant applied to the cut edges of the FP-05.
4. Cut FP-05 to fit the contour of the opening and penetrating item and friction fit into the opening on both sides of the floor or wall. Install flush with both surfaces of the floor or wall assembly.
5. Apply min 1/8 in. (3.2 mm) thickness of sealant at the interface of the interior concrete surfaces and the FP-05, over the interior seams of the coated batts and at point contact location between the penetrant and the substrate on both sides of the floor or wall.
CFS01 Mortar

Description

CFS01 Mortar is an industry leading non-intumescent firestop mortar comprised of a proprietary blend of gypsum and cement. CFS01 Mortar is designed with installation convenience in mind. Our “Variable Viscosity” technology allows the installer to add less water for a thicker consistency or more water for a thinner consistency, depending on the application needs. CFS01 Mortar provides up to 3 hours fire rating to prevent passage of flame, smoke, and toxic fumes.

Per its mix ratios, CFS01 Mortar is the most cost effective mortar solution on the market.

It is typically used to seal mechanical and electrical service penetrations, blank openings and other large annular spaces in fire-resistance rated wall and floor assemblies with ratings up to 3 hour assembly testing.

CFS01 Mortar is non-shrinking, paintable, fast drying, safe, simple to use, halogen and asbestos free. Water and gas impermeable, it offers excellent structural strength while still being re-penetrable and repairable.

Meets the intent of LEED® VOC environmental air quality requirements.

Specifications

- Mixing ratio by weight: (1 part mortar mix: 0.85 - 0.95 part water)
- Yield (per 20Kg): 22-25L (1345 in³ - 1525 in³)
- Density (after mixing): 1400-1650 kg/m³ (Wet cast)
- Drying time: 3 - 4 hours
- Time to remove backer (if required): 2 days
- Fully cured: 28 days
- Application Temperature Range: 40° F - 104° F (5° C - 40° C)
- In-Service Temperature: -13° F - 176° F (-25° C - 80° C)
- Packing: 20Kgs/Bag
- Shelf Life: 3 years, when stored indoors in dry conditions in original unopened packaging
CFS01 Mortar

Testing

ASTM E 814 up to 3 hr F and T Rating

UL 1479 3 hr F and T Rating
  L Rating at Ambient – Less than 1 cfm/sq. ft.

GB 23864

CAN/ULC S-115 up to 3 hr FTH Rating
  L Rating at Ambient – Less than 5.1 L/S/m²

Installation guide:

1. Refer to applicable certification directory or
   www.painttoprotect.com for listed assemblies.
2. Clean surfaces of the opening and all penetration items to
   ensure adhesion. Opening must be dry, frost free and void of any
   grease and dust.
3. An appropriate backer must be installed first, as per Listed
   system; cut to fit below the opening to support the mix until
   it cures.
4. Mix with clean potable water in a proper container according
   to the mixing ratio (1 part mortar mix: 0.85 - 0.95 part water),
   slowly adding the mortar into water while stirring by power
   mixer to ensure a smooth lump-free mix (Note: Do not add water
   into mortar). Mix well for 30-40 seconds. The wet mixture is best
   poured into the floor opening within 3 minutes after mixing.
5. Pour the wet mix into the opening, allowing for the proper depth
   of fill materials. If the first pouring depth is not sufficient, add
   more wet mix after the mortar is set.
6. Remove the backer after the mix has set if it is combustible.
   Noncombustible backers may remain in place.
7. Clean all tools and mixing containers with water immediately
   after using.
US110 Fire Barrier Foam

Description
Industry leading Firestop Technology, US110 Fire Barrier Foam is a two component foam, consisting of separate A and B liquid components which, when mixed, form a flexible medium-density fire retardant foam.

US110 Fire Barrier Foam is designed to seal large openings containing multiple penetrations such as cable bundles, cable trays and metallic pipes. Prior to foaming, the liquid components remain fluid, allowing effortless sealing of any size and shape opening, making the product quicker and more efficient than traditional firestop methods.

US110 Fire Barrier Foam’s fast expansion technology quickly fills voids, offering excellent protection from fire, heat transfer, smoke and gases.

US110 Fire Barrier Foam offers unparalleled resistance to fire consumption, is halogen and asbestos free, durable and maintenance free.

Meets the intent of LEED® VOC environmental air quality requirements.

Specifications:

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<th></th>
<th>US110 A</th>
<th>US110B</th>
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<tr>
<td>Mix ratio A:B</td>
<td>7-4 by weight</td>
<td></td>
</tr>
<tr>
<td>Yield per kit:</td>
<td>134,750 cm³ (depending on ambient conditions)</td>
<td></td>
</tr>
<tr>
<td>Performance:</td>
<td>50+ years HOAC tested</td>
<td></td>
</tr>
</tbody>
</table>

Applications

32

Fill, void or cavity material. For use in through-penetration firestop and joint systems.
US110 Fire Barrier Foam

Testing

ASTM E 814 up to 2 hr F and T Ratings

UL 1479 2 hr F and T Ratings

L Rating at Ambient – Less than 1 cfm/sq. ft.

ULC S-115 up to 2 hr FH Rating

L Rating at Ambient – Less than 5.1 L/S/m²

FM Approved

ASTM E 84 Flame 0 Smoke 25

CNS 14514 2 hr Class A and B

ASTM E662 & FAR 25.853

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.

2. Areas to be protected must be clean and free of oil, loose dirt, rust or scale. Installation temperatures must be between 68° F - 86° F (20° C - 30° C).

3. Calculate amount of material required, based on the fact that a 19.25 kg kit yields 134,750 cm³.

4. US110 is supplied as two part components (Parts A & B). Settling and separation during storage is expected, therefore both components must be stirred with a clean paddle or suitable power mixer prior to use.

5. Using a scale, weigh out and mix parts of US110A and US110B at a ratio of 7 - 4 . Mixing may be accomplished using a paddle mixer or other suitable power mixer in a container or by the use of automatic mixing and dispensing equipment. If paddle mixing is used, mix aggressively for 30 seconds.

6. Immediately pour mixed foam into the penetration. Product rises and cures in 1-5 minutes depending on temperature.

7. Mechanical mixing and dispensing is recommended for large volume applications.
US150 Fire Barrier Foam

Description

Industry leading Firestop Technology, US150 Fire Barrier Foam is a two component medium density foam which, when mixed, forms a rigid-density fire retardant foam. US150 Fire Barrier Foam is designed for large openings containing single or multiple penetrations.

US150 Fire Barrier Foam’s fast expansion technology quickly fills voids, and conforms to irregular shapes and sizes, offering excellent protection from fire, heat transfer, smoke and gases.

Repairable and re-penetrable, US150’s rigid structure is easy to drill using common hole saws, ideal for irregular shaped openings that will require future penetrations.

US150 Fire Barrier Foam is low VOC, halogen and asbestos free, durable and maintenance free.

Meets the intent of LEED® VOC environmental air quality.

Specifications:

<table>
<thead>
<tr>
<th>US150 A</th>
<th>US150B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Black</td>
</tr>
<tr>
<td>Packing:</td>
<td>14Kg/Pail 400 ml 2K Cartridge</td>
</tr>
<tr>
<td>Foaming time:</td>
<td>1 - 5 min.</td>
</tr>
<tr>
<td>Optimum foaming temp:</td>
<td>68° F - 86° F (20° C - 30° C)</td>
</tr>
<tr>
<td>Curing Time:</td>
<td>24 hours</td>
</tr>
<tr>
<td>Foam rate:</td>
<td>2.5 - 4 times</td>
</tr>
<tr>
<td>L.O.I.:</td>
<td>≥32</td>
</tr>
<tr>
<td>Storage temp:</td>
<td>50° F - 77° F (15°C - 25°C)</td>
</tr>
<tr>
<td>In-Service temp:</td>
<td>-13° F - 176° F (-25° C - 80° C)</td>
</tr>
<tr>
<td>Shelf life:</td>
<td>12 months</td>
</tr>
<tr>
<td>Intumescent expansion rate:</td>
<td>4-8 times</td>
</tr>
<tr>
<td>Mix ratio A:B</td>
<td>7-3 by weight</td>
</tr>
<tr>
<td>Yield per kit:</td>
<td>60,000cm³ (depending on ambient conditions)</td>
</tr>
<tr>
<td>Performance:</td>
<td>50+ years HOAC tested</td>
</tr>
</tbody>
</table>
US150 Fire Barrier Foam

Testing
- ASTM E814 up to 2 hr F&T Rating
- UL 1479 up to 2 hr F&T Rating
- CNS 14514 up to 3 hr Class A&B
- GB 23864
- ASTM E662 & FAR 25.853

Installation guide for cartridge system:
(Clean all surfaces of the opening and penetrants before applying).
1. Hold the cartridge with the nozzle pointing upwards and pointing away from you then unscrew the cap.
2. Thread the static mixer onto the cartridge and screw securely.
3. Release the dispenser on applicator gun and pull back the piston rod.
4. Insert the cartridge in the dispenser.
5. Trigger the gun several times until the mixture in the mixer has a constant color. Discard the first few strokes.
6. Apply US150 to build up a seal by working from the back towards the front and bottom to top of the opening.
7. If necessary, install forming material at the back side or bottom side before applying.
8. Once the void is filled, excess foam may be trimmed flush with the surface of the wall or floor using a sharp knife or blade.

Installation guide:
1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Areas to be protected must be clean and free of oil, loose dirt, rust or scale. Installation temperatures must be between 68° F - 86° F (20° C - 30° C).
3. Calculate amount of material required, based on the fact that a 20 Kg kit yields 60,000 cm³.
4. US150 is supplied as two part components (Parts A & B). Settling and separation during storage is expected, therefore both components must be stirred with a clean paddle or suitable power mixer prior to use.
5. Using a scale, weigh out and mix parts of US150A and US150B at a ratio of 7 – 3. Mixing may be accomplished using a paddle mixer or other suitable power mixer in a container or by the use of automatic mixing and dispensing equipment. If paddle mixing is used, mix aggressively for 30 seconds.
6. Immediately pour mixed foam into the penetration. Product rises and cures in 1– 5 minutes depending on temperature.
7. Mechanical mixing and dispensing is recommended for large volume applications.
US 150 Firestop Brick

Description
US 150 Firestop Brick is a medium density, flexible polyurethane foam designed to firestop large openings containing various penetrants. Once exposed to fire US 150 is highly intumescent, this expansion provides a tight seal against the passage of flame, smoke and toxic gases.

US 150 can be easily cut to fit on site so penetrants can be easily added, changed or removed and the US 150 Bricks can be reused to restore the firestop rating. This makes US 150 ideal for use with data and communication cabling or control cabling and cable trays.

US 150 can be installed from one side allowing openings with limited access to be effectively firestopped. US 150 pillows require no curing so are not limited by installation temperature like sealants. offering a window install window.

Specifications
- Density (g/cm³): 0.28 – 0.38
- Color: black
- Size: 2" x 5" x 8"
- VOC: 0g/L
- Initial Expansion Temp.: 180°C
- Intumescent Rate: 4 – 8X
- ASTM E84: Flame 0 Smoke 5
- Packaging: 26pcs/CTN, 40 CTN/Pallet

Characteristics
- Flexible and compressible for a tight seal
- Repairable, re-penetrable and Reusable
- High expansion rate
- Wide installation window
- Excellent fire resistance
- Asbestos Free and halogen Free
- Easy installation, no special tools required

Testing:
- ASTM E814 up to 2 hr F&T Rating
- UL 1479 up to 2 hr F&T Rating
- CNS 14514 up to 3 hr Class A&B
- GB 23864
- ASTM E662 & FAR 25.853
- FM Approved
- ASTM E84
1. Clean the opening
2. Begin stacking bricks, in a bricklike pattern, compress into opening
3. Cut the bricks, as needed, to fit the opening or any penetrants
4. Apply FM011 Putty around penetrations as required by Listed system
5. Fill opening surrounding penetrant
6. Stack bricks to completely fill the remaining opening, use FM011 Putty or FM012 Sealant to fill any voids or gaps
Fireproof Blanket FB01-15

Applications

Description
FB01-15 Fireproof Blanket is an industry leading fire resistant wrap consisting of a ceramic fiber blanket encapsulated with a scrim-reinforced foil. It provides a flexible, non-combustible enclosure for duct or cable tray applications. The thermal insulation of FB01-15 can be used in combination with Listed systems to provide a "T" rating to penetrating items.

FB01-15 Fireproof Blanket is easily trimmed to different sizes to fit any installation and can be easily installed to wrap air ducts or metal conduit and cable tray. Lightweight and highly flexible for easy installation, asbestos free, low flame spread and smoke development, FB01-15 offers excellent fire resistant performance.

Meets the intent of LEED® VOC environmental air quality requirements.

Specifications

- Thickness: 13 mm
- Width: 600 mm or 1200 mm
- Length: 7200 mm in Roll
- Max. Temperature: 1260° C (2300° F)
- Density: 128 Kg/m³
- Tensile Strength: 1.05 Kg/cm²
- Package: 600 mm - 2 per box
  1200 mm - 1 per box
- Performance: 50+ years HOAC tested
Fireproof Blanket FB01-15

Testing

UL 1479 3 hr T, F and L Rating
CAN/ULC S115 2 hr FTH Rating
CNS 14514 3 hr Class A and B
ASTM E662
ASTM E 84 Flame 0 Smoke 0

Installation guide:

1. Refer to applicable certification directory or www.painttoprotect.com for listed assemblies.
2. Ensure application area is clean and free of oil, loose dirt, rust or scale.
3. Cut the FB01-15 to a length sufficient to wrap completely around the perimeter of the duct or cable tray, making sure to provide an overlap of 4” or as specified in Listed assembly. Use AL foil tape to seal the cut edge.
4. Cut the next adjacent wrap of FB01-15 to overlap the previous adjacent wrap at least 3” or as specified in Listed assembly. Use INSS2460 to adhere the overlap portion and AL foil tape to seal the cut edges of the blanket.
5. Install banding or tie wire around the FB01-15 to hold it in place.
Industry leading Firestop Technology. ProWrap Blanket is a fire resistive barrier product developed to provide true fire protection for electrical component systems threatened by a hydrocarbon fire condition.

ProWrap Blanket is a ceramic fiber, made from the purest raw materials which are electromelted, air-blown at high speed and fiberized. It is needle punched on both sides and possesses high strength before or after heating. Lightweight and soft to the touch, ProWrap Blanket is under FM Global follow-up inspection service at manufacturing locations ensuring that the product received for installation meets the same exact quality standards of the material that was submitted for testing.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Service Temperature (°C)</td>
<td>1260</td>
</tr>
<tr>
<td>Bulk density (kg/m³)</td>
<td>115—150</td>
</tr>
<tr>
<td>Linear Shrinkage:</td>
<td>≤ 3% @ 1100°C X 24hr</td>
</tr>
<tr>
<td></td>
<td>≤ 1.5% @ 1000°C X 24hr</td>
</tr>
<tr>
<td>Thermal Conductivity (W/m . K)</td>
<td>≤ 0.13 @ 400°C</td>
</tr>
<tr>
<td></td>
<td>≤ 0.18 @ 600°C</td>
</tr>
<tr>
<td></td>
<td>≤ 0.26 @ 800°C</td>
</tr>
<tr>
<td>Specific Heat (kJ / kg . K)</td>
<td>1.046 @ 800°C</td>
</tr>
<tr>
<td>Available Size:</td>
<td>25.0mmX600mmX7200mm per roll</td>
</tr>
<tr>
<td></td>
<td>37.5mmX600mmX5000mm per roll</td>
</tr>
</tbody>
</table>
Charateristics

• Excellent refractory and insulating properties
• High strength, lightweight, flexible wrap for easy installation
• 30 minutes cable tray and conduit hydrocarbon fire protection
• FM approved base on worse-case test (Empty tray/conduit; no heat sink
• Zero flame and no smoke
• Thermal stability and low shrinkage
• Max. temperature use up to 1260° C

Testing

ASTM E1725
ASTM E1529
FM Approval Class: 3973
Description
High strength aluminum foil tape meets the needs of many different industries and applications. Used on seams and joints of fiberglass and aluminum backed duct board to provide an air tight/vapor tight seal. Used as a means of securing INSS0812 Wrap Strips in Firestop systems. Tenacious adhesion making it ideal when temperature and humidity issues are present.

Characteristics
- Malleable-conforms to irregular shapes
- High adhesion, even in difficult climates
- Excellent Fire Properties
- Air tight/Vapor tight seal
Foil Tape

Technical Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive</td>
<td>Acrylic</td>
</tr>
<tr>
<td>Backing</td>
<td>Aluminum Foil</td>
</tr>
<tr>
<td>Backing Thickness</td>
<td>2.8 mils (0.07mm)</td>
</tr>
<tr>
<td>Total Thickness</td>
<td>4.6 mils (0.12mm)</td>
</tr>
<tr>
<td>Temperature Use Range</td>
<td>-65°F to 300°F (-54°C to 149°C)</td>
</tr>
</tbody>
</table>

Applications

- Flame resistance
- Seal joints in FB01-15 Fire Blankets
- Sealing out air and moisture
- Thermally conductive
- UV protection
- Temperature resistant
- Easy Repairs
- Quick stick at normal temperatures and superior low temperature adhesion performance below freezing.
DC315 Intumescent Coating

**Description**

DC315 is an intumescent coating for Spray Polyurethane Foam (SPF) and provides an alternative 15 or 20 minute thermal barrier. Tested and compliant in the USA by ICC-ES, AND Canada by CCMC, DC315 is the most tested and approved alternative thermal barrier on the market today!

To be approved as an Alternative Barrier System, DC 315 is applied over a manufacturer’s SPF and tested to the criteria of NFPA 286, UL 1715 or ISO-CAN/ULC 9705 for duration of 15-20 minutes by an accredited fire testing facility. DC 315 has also been tested as an ignition barrier under AC 377 Appendix X. DC315 is fully AC456 Compliant and satisfies the International Building Code (IBC) International Residential Code (IRC) National Building Code of Canada (NBCC) and many other International model building codes.

**DC315 Tested Solutions for Spray Polyurethane Foam**

- More full scale Thermal and Ignition Barrier tests than any other product in the world
- DC 315 - 3rd. party inspected for Quality Control: Warnock Hersey Intertek WIN 20947
- Tested useful life, fire resistant property is not compromised after 50 years
- Top coat for color, weather & moisture protection, tested, via NFPA 286 full scale testing
- ANSI 51 testing for incidental food contact
- Passed CAL 1350 - qualify DC 315 as a low-emitting material in the Collaborative for High Performance Schools rating system (CHPS Designed & CHPS Verified)
- Passed strict EPA – V.O.C. and AQMD air emission requirements (for all 50 states)
- 3rd Party tested “Single Coat Coverage” up to 24 Mils WFT, on ceilings and walls, reducing labor costs equaling higher profits
- Meets Life Safety Code 101
- Meets LEED’s point

*End Use Applications: DC315 is for interior use as a thermal or ignition barrier coating to protect SPF. Contact IFTI for instruction for using DC315 in other applications such as, but not limited to, cold storage, parking garages, high humidity, or any unconditioned spaces.

**Specifications**

- **Finish:** Flat
- **Color:** Ice Gray, White and Dark Grey are special order
- **V.O.C.:** (47 g/l)
- **Volume Solids:** 67%
- **Drying Time** @ 77°F & 50% RH To touch 1-2 hours to recoat 2 to 4 hours
- **Type of Cure:** Coalescence
- **Flash Point:** None
- **Reducer/Cleaner:** Water
- **Shelf Life:** 1 year (unopened)
- **Packaging:** 5 & 55 gallon containers
- **Shipping weight:** 5 gallon pail ~ 58 lbs. 55 gallon drum ~ 640 lbs.
- **Application:** Brush, roller, conventional and airless spray
- **Performance:** 50+ years HOAC tested
- **WH Listed:** Spec ID 32890
Visit us at our website www.painttoprotect.com to obtain a current matrix of all the manufacturer’s foams DC 315 has been tested and approved as Thermal or Ignition barriers in compliance with current Building Codes.

International Building Code Fire Performance Requirements for SPF: The International Building Code (IBC) mandates that SPF be separated from the interior of the building by a 15-minute thermal barrier, or other approved covering. DC 315 passed certified NFPA 286 and UL 1715 test over a variety of open and closed cell spray applied urethane foams that were conducted by IAS certified testing facilities. All tests performed comply with the requirements of 2009 IBC Section 803.12, and Section 2603.9; 2012 IBC Section 803.12 and Section 2603.10

Alternative Ignition Barrier Assemblies DC 315 meets the requirements for ignition barrier per AC 377, Appendix X.

National Building Code of Canada Alternative Thermal Barrier Assemblies: DC315 prevents flashover for 10 minutes for Combustible Construction or 20 minutes for Non-Combustible construction when tested to the CAN/ULC 9705 Standard and meets the Intent of NBC Section 3.1.5.12 for the protection of foamed plastics. Ensure application thickness is applied according to building type.

European Union: DC315 has been tested over both medium density and low density spray polyurethane foam and provides an EN13501-1 Fire Classification of B-S2-D0.

Australia and New Zealand: DC315 has been tested to the AUS ISO-9705 over spray polyurethane foam and meets Group 2 Classification. ISO5660 (part 1 and 2) tests confirm Group number classification as 1 which allows for the addition of the thermal barrier coating to upgrade the fire rating.

Testing

USA
• ASTM E84 – Flame Spread 0 Smoke 10
• NFPA 286, UL1715
• ASTM E2768- 30 minute Ignition Resistant material

Canada
• CAN/ULC S102 FSR 23 SDC 145 – (tested as a system over SPF)
• CAN/ULC S 101
• CAN/ULC 9705 10 and 20 minute assembly testing

Pump: (Graco) UltraMax 795 or equivalent
PSI: 3000
GPM: 1.1
Tip: 517 - 523 or equivalent.
Filter: Removal from the machine and gun is required
Hose: 3/8” diameter airless spray line for the first 100’ from pump and 1/4” x 3’ whip

Pump: (Graco) TexSpray Mark 5 or equivalent
PSI: 3300
GPM: 1.35
Tip: 517 - 523 or equivalent.
Filter: Removal from the machine and gun is required
Hose: 3/8” diameter airless spray line for the first 100’ from pump and 1/4” x 3’ whip

Pump: (Graco) GMAX 7900 or equivalent
PSI: 3300
GPM: 2.2
Tip: 517 - 529 or equivalent.
Filter: Removal from the machine and gun is required
Hose: 1/2” diameter airless spray line for the first 100’ 300’ from pump and 1/4” x 3’ whip

Pump: (Graco) GH 833 or equivalent
PSI: 4000
GPM: 4.0
Tip: 517 - 529 or equivalent.
Filter: Removal from the machine and gun is required
Hose: 1/2” diameter airless spray line for the first 100’-300’ from pump and 1/4” x 3’ whip

European Union
• BS 476 Part 6 & 7
• BS EN ISO 11925-2
• EN 13823
• EN 13501 Classification B S2 D0

Australia/New Zealand
• AUS ISO 9705
• AS/NZS 1530.3
• AS 5637.1 Group Classification 2, NZBC Group 2-S
• ISO 5660 Parts 1 and 2
DC 333 is a water based intumescent coating used to increase fire resistance ratings of construction materials like OSB/Plywood, gypsum and lumber. DC 333 is also effective at reducing flame spread ratings of materials not required to meet resistance ratings. Applied as a primer to interior surfaces, DC 333 can be top-coated with desired finish latex paint to match décor.

NFPA 703, Standard for Fire Retardant – Treated Wood and Fire-Retardant Coatings for Building Materials, defines FRTW as "a wood product impregnated with chemicals by a pressure process or other means during manufacture, which is tested in accordance with ASTM E 84, Standard Test Method of Surface Burning Characteristics of Building Materials, NFPA 255, Standard Method of Test of Surface Burning Characteristics of Building Materials or UL 723, Standard for Test for Surface Burning Characteristics of Building Materials; has a listed flame spread index of 25 or less; and shows no evidence of significant progressive combustion when the test is continued for an additional 20-minute period; nor does the flame front progress more than 10.5 feet (3200 mm) beyond the centerline of the burners at any time during the test."

### Specifications
- **Finish:** Flat
- **Packaging:** 5 Gallon Pails
- **Color:** Off White
- **V.O.C.:** 56 g/L

### Advantages
- Water Based Acrylic Latex
- 200 sq. ft. per Gallon as Class A
- Non-Toxic
- Hypoallergenic
- Non-Carcinogenic
- Passed Strict EPA – V.O.C. and AQMD
- Spray, Roll, or Brush
- Warnock Hersey Listed
- Compatible with any interior paintable surface

### Description
Fill, void or cavity material. For use in through-penetration firestop and joint systems.
**Testing:**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Testing Standard</th>
<th>Protocol</th>
<th>Time/Test Results</th>
<th>Coverage Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intertek</td>
<td>ASTM E 84</td>
<td>Surface Burning Characteristics</td>
<td>Flame 25 / Smoke 165</td>
<td>300 sq. ft. per gal</td>
</tr>
<tr>
<td>Intertek</td>
<td>ASTM E 84-08 30 minutes extended with exterior top coat</td>
<td>Surface Burning, California Urban Wildland Interface, NFPA 703 Standard for FRTW</td>
<td>Flame 0 / Smoke 20</td>
<td>100 sq. ft. per gal</td>
</tr>
<tr>
<td>Applied Physics Laboratory</td>
<td>A.S. 1530 part 3, 1999 Early Fire Hazard Properties</td>
<td>Simultaneous Ignition, Flame Prop., Heat release and Smoke release</td>
<td>0 / 0 / 0 / 3</td>
<td>2.5 sq m/L</td>
</tr>
<tr>
<td>Western Fire Center (WFC)</td>
<td>A.S.1530.4 Equivalent to ASTM E 119, CAN/ULC S 101</td>
<td>Thermal Barrier, Wood Stud 1/2” Gypsum Assembly</td>
<td>1 Hour / Passed</td>
<td>65 sq. ft. per gal</td>
</tr>
<tr>
<td>CSIRO</td>
<td>A.S.1530.4 Equivalent to ASTM E 119, CAN/ULC S 101</td>
<td>Thermal Barrier, Fibrous plaster ceilings</td>
<td>90/90/90 and 60 Minutes RISF</td>
<td>0.7m²/L</td>
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<tr>
<td>CSIRO</td>
<td>A.S.1530.4 Equivalent to ASTM E 119, CAN/ULC S 101</td>
<td>Thermal Barrier, Standard plaster-board ceilings</td>
<td>60/60/60 and 60 Minutes RISF</td>
<td>1m²/L</td>
</tr>
<tr>
<td>CSIRO</td>
<td>A.S.1530.4 Equivalent to ASTM E 119, CAN/ULC S 101</td>
<td>Thermal Barrier, Lath and plaster ceilings</td>
<td>90/90/90 and 60 Minutes RISF</td>
<td>1m²/L</td>
</tr>
<tr>
<td>International Carbide</td>
<td>ASTM E 119 Internal Test Report,</td>
<td>Vertical wall 1/2” Stud / Gypsum Assembly</td>
<td>1 Hour / Passed</td>
<td>60 sq. ft. per gal</td>
</tr>
<tr>
<td>Intertek</td>
<td>CAN/ULC S101</td>
<td>Fire Endurance Thermal Barrier</td>
<td>15 Minutes / Passed</td>
<td>110 sq. ft. per gal</td>
</tr>
<tr>
<td>Intertek</td>
<td>CAN/ULC S102</td>
<td>Surface Burning</td>
<td>Flame 0 / Smoke 25</td>
<td></td>
</tr>
<tr>
<td>Accugen Laboratories Inc.</td>
<td>ASTM D 5590</td>
<td>Mold and Fungal Resistance Test</td>
<td>Mold Resistant</td>
<td></td>
</tr>
<tr>
<td>International Carbide</td>
<td>ASTM E119 Internal Test</td>
<td>Fire Endurance and Hose Stream / Plywood</td>
<td>1 Hour / Passed</td>
<td>40 sq. ft. per gal</td>
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<tr>
<td>Wecks Labs.</td>
<td>EPA AQMD VOC</td>
<td>VOC Emission</td>
<td>56 g/L</td>
<td></td>
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<tr>
<td>CSIST Fire Research Labs</td>
<td>NES 713</td>
<td>Toxicity During Combustion</td>
<td>Non Toxic</td>
<td></td>
</tr>
<tr>
<td>UL</td>
<td>UL 723</td>
<td>Surface Burning</td>
<td>Flame 5 Smoke 10</td>
<td>100 sq. ft. per gal</td>
</tr>
<tr>
<td>UL</td>
<td>UL 723</td>
<td>Surface Burning</td>
<td>Flame 10 Smoke 25</td>
<td>200 sq. ft. per gal</td>
</tr>
</tbody>
</table>

**Uses**: Elementary, Intermediate, High School, Colleges, Nursing Homes, Hospitals, Child Care Centers, Penal Institutions, Apartments, Hotels, Factories, Warehouses, Utilities, Businesses, Retail Stores, Restaurants, Railroad, Other Transportation Companies, Military Installations, Other Government Facilities.
DC5040 is a water based thin film intumescent coating used to provide fire resistance to engineered wood framing members such as I-Joists. Applied to the I-Joist only, once the components are installed, DC5040 provides equivalence to the 2-by-10-dimension lumber prescribed in Section R302.13, Exception 4 of the 2015 IRC® and Section R501.3, Exception 4 of the 2012 IRC®.

DC5040 has been fire tested in accordance with a full-scale ASTM E-119 and meets IAPMO UES Acceptance Criteria EC017 for Field-Applied Fire Protective Coatings.

Other coatings testing requires the BOTH the I-Joists and the sub floor to be coated. DC5040’s superior performance is tested, as a single coat, applied to the I-Joist only. Subfloors can add up to 50% more surface area to be coated, DC5040 maximizes yield, reduces labor and provides a cost effective solution to meeting IRC Code requirements.

DC5040 Tested Solutions for Fire Protection of Engineered Wood Products

- Full Scale ASTM E119 Fire Tested
- Meets IAPMO UES EC017 Acceptance Criteria For Field Applied Fire Protective Coatings UES ER-568
- Meets Section A4.4 Fire Testing of ICC-ES AC14 Acceptance Criteria of Prefabricated I-Joists
- DC5040 is a topical coating with a neutral pH, applied without pressure or soaking, and does not contain chemicals that are detrimental to wood or engineered wood products.
- Tested useful life, fire resistance is not compromised for at least 50 years
- Passed strict EPA – V.O.C. and AQMD air emission requirements (for all 50 states)
- 3rd Party Tested, Intertek Listed and Inspected
- Single Coat Coverage applied to I-Joists only reducing labor costs equaling higher profits
- Passed CDPH/EHLB/Standard Method V1.2, 2017 (CA Section 01350); Smallscale environmental chamber test; VOC emission compliance test of building products;

Specifications

<table>
<thead>
<tr>
<th>Finish</th>
<th>Flat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>pH</td>
<td>7 ±1</td>
</tr>
<tr>
<td>V.O.C.</td>
<td>37g/L</td>
</tr>
<tr>
<td>Solids By Volume</td>
<td>67%</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.35+/-0.1 g/cc</td>
</tr>
<tr>
<td>Drying Time</td>
<td>@77° F &amp; 50% R.H. – To touch 1 – 2 hours, to recoat, if required, 2 to 4 hours</td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Reducing or Cleaning</td>
<td>Water</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>18 months from date of manufacture in unopened containers and stored at 5° C to 35° C (40° F to 95° F)</td>
</tr>
<tr>
<td>5 Gal. Container Weight</td>
<td>58 lbs.</td>
</tr>
</tbody>
</table>

Testing

- ASTM E84 – Flame Spread 0 Smoke 15
- ASTM E 119– Fire Resistance
- CAL 1350 Compliant
DC5040 Intumescent Coating

Application Thickness
DC5040 must be applied at 26 mils WFT to the I-joist top and bottom flanges and both sides of the web. The sub-floor is not required to be coated.

Material Preparation
DC5040 must be thoroughly mixed before application. Failure to do so will seriously compromise the coating’s ability to perform. It is required to perform mechanical stirring with a medium speed drill and a paddle appropriate for the size container you are working from. Contents should be stirred from the bottom up making sure to scrape the bottom and sides with a paint stick as you go. Contents should be stirred to a creamy consistency with no lumps. Continue mixing for 4–5 minutes per 5 gallons pail, 15–20 minutes per 55-gallon drum.

Temperature:
PROTECT FROM FREEZING DURING SHIPMENT, STORAGE, AND USE. DC5040 is a water based coating which will freeze and become unusable at temperatures below 32° F. Do Not store material at temperatures below 40° F. Do not apply DC5040 when ambient air and substrate temperatures fall below 50° F. Store DC5040 at 40° F to 95° F at all times.

Ventilation:
Fans may be required to circulate the air during application, especially in high or low humidity. Air flow must be across the area DC5040 was applied, but not directly on it. If the relative humidity is greater than 85% at the end of spraying and cross ventilation is not drastically reducing it, then a mechanical industrial dehumidifier is required.

Application Equipment
DC 5040 can be applied by brush, roller or airless sprayer. For maximum yield and coverage spray application is recommended. Proper equipment and settings are imperative for correct application. Remove all filters from machine and gun. DC5040 requires high pressure to atomize the coating at the spray tip, correct atomization will yield a more consistent spray pattern and easier coverage of uneven surfaces. Using the table, ensure you match your tip size to your machine – this is critical to ensure correct pressure at the spray tip. If the spray pattern has fingers or tails, then the pressure should be increased. If the maximum pressure of the sprayer is not enough to achieve a good spray pattern, a spray tip with a smaller orifice should be used.

<table>
<thead>
<tr>
<th>Pump:</th>
<th>Graco UltraMax 795 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI:</td>
<td>3000</td>
</tr>
<tr>
<td>GPM:</td>
<td>1.1</td>
</tr>
<tr>
<td>Tip:</td>
<td>517 - 523 or equivalent.</td>
</tr>
<tr>
<td>Filter:</td>
<td>60 mesh filter at machine, remove filter from gun if present</td>
</tr>
<tr>
<td>Hose:</td>
<td>3/8&quot; diameter airless spray line for the first 100' from pump and 5/16&quot; x 3' whip</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump:</th>
<th>Graco TexSpray Mark 5 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI:</td>
<td>3300</td>
</tr>
<tr>
<td>GPM:</td>
<td>1.35</td>
</tr>
<tr>
<td>Tip:</td>
<td>517 - 523 or equivalent.</td>
</tr>
<tr>
<td>Filter:</td>
<td>60 mesh filter at machine, remove filter from gun if present</td>
</tr>
<tr>
<td>Hose:</td>
<td>3/8&quot; diameter airless spray line for the first 100' from pump and 5/16&quot; x 3' whip</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump:</th>
<th>Graco GMAX 7900 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI:</td>
<td>3300</td>
</tr>
<tr>
<td>GPM:</td>
<td>2.2</td>
</tr>
<tr>
<td>Tip:</td>
<td>517 - 529 or equivalent.</td>
</tr>
<tr>
<td>Filter:</td>
<td>60 mesh filter at machine, remove filter from gun if present</td>
</tr>
<tr>
<td>Hose:</td>
<td>3/8&quot; diameter for first 200' 1/4&quot; for additional 100' from pump and 5/16&quot; X 3' whip</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump:</th>
<th>Graco GH 833 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI:</td>
<td>4000</td>
</tr>
<tr>
<td>GPM:</td>
<td>4.0</td>
</tr>
<tr>
<td>Tip:</td>
<td>517 - 529 or equivalent.</td>
</tr>
<tr>
<td>Filter:</td>
<td>60 mesh filter at machine, remove filter from gun if present</td>
</tr>
<tr>
<td>Hose:</td>
<td>1/2&quot; diameter for first 200' 3/8&quot; for additional 100' from pump and 5/16&quot; X 3' whip</td>
</tr>
</tbody>
</table>
DC310 Fireproof Cable Coating

Description
DC310 fireproof cable coating for wires and cable is developed using innovative intumescent technology. It is a heavy duty intumescent coating for interior applications used to effectively prevent flame spread. When fire occurs, the coating will rapidly intumesce to form a foam char layer that prevents fire propagation. DC310 fireproof cable coating is water based, asbestos-free, non-halogenated and environmentally-friendly. DC310 is able to protect cables for up to 90 minutes depending on application thickness and cable type.

Specifications

<table>
<thead>
<tr>
<th>Color</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Flat</td>
</tr>
<tr>
<td>Density</td>
<td>1.3±0.1 kg/L</td>
</tr>
<tr>
<td>Viscosity</td>
<td>10000-25000cps(25°C); Adjustable</td>
</tr>
<tr>
<td>pH</td>
<td>7.5±0.5</td>
</tr>
<tr>
<td>VOC</td>
<td>56 g/L</td>
</tr>
<tr>
<td>Typical thickness: 1mm WFT equivalent to 0.6mm DFT</td>
<td></td>
</tr>
<tr>
<td>Solid content: ≥60% Volume</td>
<td></td>
</tr>
<tr>
<td>Storage temp: 40°F - 95°F (5°C - 35°C)</td>
<td></td>
</tr>
<tr>
<td>Drying time (25°C) : 3-4 hours touch dry, 24 hours dried through</td>
<td></td>
</tr>
<tr>
<td>Application Temp: 40°F - 104°F (5°C - 40°C)</td>
<td></td>
</tr>
<tr>
<td>In-Service Temp: -13°F - 176°F (-25°C - 80°C)</td>
<td></td>
</tr>
<tr>
<td>Packaging: 25 kg/pail</td>
<td></td>
</tr>
<tr>
<td>Shelf life: 12 months</td>
<td></td>
</tr>
</tbody>
</table>

Advantages
- Intumescent
- Water Based
- Low Odor
- Asbestos Free
- Flexible
- Safe and Easy to Use

Testing
- IEEE383- Standard for Qualifying Electric Cables and Splices for Nuclear Facilities
- IEC60332-3A- Test of vertical flame spread on single or grouped electrical cables
- GB28374- Standard flame spread test of electrical cables.
- ASTM D5116 - Determination of Organic Emissions from Indoor Materials/Products
DC310 Fireproof Cable Coating

Recommended sprayer:

<table>
<thead>
<tr>
<th>Pump</th>
<th>Wagner PS 3.34</th>
<th>(Graco) TexSpray Mark 5 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>3300</td>
<td>3300</td>
</tr>
<tr>
<td>GPM</td>
<td>1.00</td>
<td>1.35</td>
</tr>
<tr>
<td>Tip</td>
<td>517 – 523 or equivalent.</td>
<td>517 - 523 or equivalent.</td>
</tr>
<tr>
<td>Filter</td>
<td>60 mesh at machine</td>
<td>60 mesh at machine, removal of filter from gun</td>
</tr>
<tr>
<td>Hose</td>
<td>3/8” diameter airless spray line for the first 100’ from pump and 1/4” x 3’ whip</td>
<td>3/8” diameter airless spray line for the first 100’ from pump and 1/4” x 3’ whip</td>
</tr>
</tbody>
</table>

Installation guide:

1. Surfaces to be coated must be clean and dry. Use a dry rag to remove any oil, grease, and dirt prior to cable coating application.
2. Mix DC310 cable coating thoroughly by a power agitator before application. Thinner is normally not required. If necessary, use potable water (3% max.) to adjust viscosity. Water is also used for tools and spray machine cleaning.
3. Coating can be applied by means of airless spray equipment in a single pass, not more than 1mm-1.2mm (wet coating thickness) to prevent slumping. Surface shall be measured using a wet film thickness gauge. If applying coating by brush or roller, it may be required to apply thinner coats to prevent slumping. The coating should be applied when site temperature is between 5° C (40° F) and 40° C (104° F). Temperature must be maintained until coating has fully dried.
4. Verify the DFT by using calipers to measure the cable before coating and once coating has fully dried.
5. Do not allow the coating material to remain in hoses, gun or spray equipment. Clean all equipment with water immediately after use.
6. All unused coating should be stored in tightly closed container. Surface skinning may show in a partially filled container. Filter the material prior to use.

The estimated quantity of DC310 can be calculated as $= 2 \times \pi \times R \times \text{Length of cable} \times \text{Number of cables} \times \text{Thickness of coating}$. All coating approved by FM3971 must be applied at 1.6mm DFT.
DC6150 Cable Coating

Description
DC 6150 Cable Coating is a non-halogenated, asbestos-free, non-toxic, flexible, ablative fire retardant cable coating designed to prevent the propagation of fire along plastic jacketed electrical cables. DC 6150 Cable Coating is FM Approved and tested to ensure it can withstand extreme conditions such as freeze/thaw cycles and salt water immersion. This testing also ensures that the protective coating does not de-rate the cables current carrying capacity. DC 6150 Cable Coating is a water based latex and is suitable for both interior and exterior use.

Specifications
Color: White
Odor: Mild Latex
Gloss Level: Matt
Specific Gravity: 1.55 ± 0.1
Solids by Weight: 70–76%
pH Value: 6 – 8
VOC’s: 28 g/L
Dry to Touch: 2 – 4 hours
Dry Through: 2 – 4 days (Depending on ambient conditions)
Application: Airless spray, brush or roller
In-Service Temp: -13° F - 176° F (-25° C - 80° C)
Typical Thickness: 1000 microns WFT (39.5 mils) equivalent to 640 microns DFT (25 mils)
Packaging: 25Kg/pail
Shelf life: 18 months
Testing

**FM Approval Class: 3971 for Single or Grouped Electrical Cables**

**IEEE383- Standard for Qualifying Electric Cables and Splices for Nuclear Facilities Passed at 1.5 mm**

**IEC 60332- Test of vertical flame spread on single or grouped electrical cables Passed at 0.9 mm Class 3A**

**IEEE1202 – Standard for Flame Testing of Cables for Use in Cable Tray in Industrial and Commercial Occupancies Passed 1.5 mm**

**GB28374 – Standard flame spread test of electrical cables Passed at 1.0 mm including fire and weather testing**

Installation guide:

1. Surfaces to be coated must be clean and dry. Use a dry rag to remove any oil, grease, and dirt prior to cable coating application.
2. Mix DC 6150 cable coating thoroughly by a power agitator before application. Thinner is normally not required. If necessary, use potable water (3% max.) to adjust viscosity. Water is also used for tools and spray machine cleaning.
3. Coating can be applied by means of airless spray equipment in a single pass not more than 0.8mm~0.9mm (wet coating thickness) to prevent slumping. Surface shall be measured using a wet film thickness gauge. If applying coating by brush or roller, it may be required to apply thinner coats to prevent slumping. The coating should be applied when site temperature is between 4°C (40°F) and 40°C (104°F). Temperature must be maintained until coating has fully dried.
4. Recommended coating thickness on cables: 2.5 mm WFT results in 1.6 mm dry. Verify the DFT by using calipers to measure the cable before coating and once coating has fully dried.
5. Do not allow the coating material to remain in hoses, gun or spray equipment. Clean all equipment with water immediately after use.
6. All unused coating should be stored in tightly closed container. Surface skinning may show in a partially filled container.

The estimated quantity of DC6 150 can be calculated as = Width of the cable X number of cables X Pi X Length of cable tray or the length of the cable X 2.5 mm (thickness of wet film) X 1.20 (20% wastage). All coating approved by FM3971 must be applied at 1.6 mm DFT.
Description

Interior furniture and synthetic fabrics are the number one contributing factors to fire spread and smoke generation.

Spray to Protect DC 68: is a new water based fire proofing spray that is a Non-Toxic, Hypoallergenic, colorless and odorless formula that can be used on virtually any water absorbent fabric or material*. 

Three components are necessary for fire: fuel, oxygen, and a source of ignition. Once Applied, DC68 Disrupts the combustion stage of a fire cycle, including avoiding or delaying “flash-over,” or the burst of flames normally present when combustible materials burn. DC68 automatically reacts to fire or heat and converts combustible gases to non-combustible nitrogen and carbon dioxide which dilutes the flammable gases and lowers the oxygen concentrations in the flame formation zone. Not only does this remove the oxygen required for fire, but also has a cooling affect that reduces heat and eliminates this as an ignition source.

Removing only one of the three required components will extinguish a fire, DC68 works to remove two– Oxygen and Heat.

*Not intended for use on Clothing

Specifications

Passed: NFPA 701 Tested at UL
UL Certificate of Compliance

Meets: NFPA 101 Life Safety Codes

Description: Fire Retardant for Fabric and Material*

Conveniently packaged: 24 FL OZ (0.7 L) Trigger spray bottles
1 Gallon and 5 Gallon Pails

Coverage: 480 Sq Ft per gallon
120 Sq Ft per Quart
75 square feet per 20 FL.OZ

Shelf Life: 3 Years

V.O.C.: Low V.O.C

RoHS Compliant
CE/2008/19326:
No Formaldehyde
No Cadmium
No Lead No Mercury
No Hexavalent Chromium

Code

DC68 Meets;

IBC Section 424.2(5)(8) Children’s Play Structures Textiles and films complying with the flame fire propagation performance criteria contained in NFPA 701.

IBC Section 806.3 Combustible decorative materials curtains, draperies, fabric partitions hangings and similar combustible decorative materials suspended from walls or ceilings shall comply with Section 806.4

IBC Section 806.4 Acceptance criteria and reports to exhibit improved fire performance, curtains, draperies, fabric hangings and similar combustible decorative materials suspended from walls or ceilings shall be tested by an approved agency and meet the flame propagation performance criteria of NFPA 701.
DC 68 Spray to Protect

Uses:
- Coverage 75 square feet per 24 fl. oz.
- Curtains
- Drapes
- Carpets and Rugs
- Upholstery
- Decorations
- Paper Products
- Sleeping Bags
- Mattresses
- Wall Paper & Coverings
- Aprons
- Boots
- Table Cloths
- Any Water Absorbent Fabric*
- Requires no special equipment to apply simply soak or spray depending on your needs

*note- Not intended for use on clothing

Upon exposure to an ignition source tent immediately catches fire and burns to the ground in less than 3 minutes

Treated tent exposed to same ignition source did not ignite during 15 minute test
HITS Intumescent Sheet

Product Description
HITS - High Intumescent Sheet is a flexible and ultra thin, expandable graphite based intumescent sheet designed to create a thermal insulation layer to protect the substrate during a fire.

The non woven fabric base is combined with proprietary intumescent compounds that, when exposed to heat, will expand to approx. 15mm. The carbon char will provide excellent fire protection of the substrate and significantly reduce smoke. If HITS is installed in an application that limits the expansion, the resulting high density char will provide a better thermal barrier to further delay ignition.

Specifications
- **Thickness**: 0.45 ±0.05 mm, 0.36 ±0.04 mm
- **Width**: 1200 mm
- **Length**: 1000 M
- **Basic Weight**: 280 ± 14g/M²
- **Base Materials**: Non-woven fabric, graphite based fire retardants
- **Expandable Rate**: ≥ 35X by Volume
- **L.O.I.**: > 50
- **UL 723 / ASTM E84**: Class A, Flame Spread 20, Smoke 15

Characteristics
- Ultra Thin, light and flexible for easy installation
- Low expansion temperature
- High expansion rate
- Dense and strong intumescent carbon char layer
- Halogen, asbestos and formaldehyde free,
- Environmentally friendly safe and easy to use.