

## Technical Data

### ➤ Product Description

Nelson Firestop Joint Coating (FSC3™) is a water based acrylic latex, elastomeric, fire protective coating for use on construction joints. It is designed for labor saving spray applications onto construction joints and perimeter joint systems (curtain wall assemblies).

### ➤ Application

FSC3™ coating is spray, brush or trowelled applied over a min. 4" depth of mineral wool insulation packed within the joint width. FSC3™ is specifically for applications in construction joints, wall to wall, floor to wall, floor to floor, head of wall and perimeter joint curtain wall applications where thermal expansion and contraction of joints may be encountered. Actual installation may vary according to the type of joint to be protected. Joint surfaces should be clean and free of dust, dirt, oil, grease, loose material, rust or other substances. A 1/8" wet thickness is applied over the insulation and overlaps the joint surfaces by a minimum 1/2". Product cures to a nominal 1/16" dry thickness.

### ➤ Availability

AA0868 - 5 Gallon Pail (19.0L) – 1,155 cu. in.

### ➤ Sprayer Requirements

Use a mid-sized commercial pump at minimum. An Airlessco SL810 sprayer with 5 gal suction setup, 50' x 3/8" airless hose, 007XL spray gun with 0.019 to 0.023 tip is a recommendation.

### ➤ Approvals

Underwriters Laboratories Inc. Fill, Void or Cavity Material (XHHW)  
Omega Point Laboratories Joint Sealant (Category 07920)  
City of New York, New York, Department of Buildings

- MEA 127-04-M Vol. II
- MEA 127-04-M

### ➤ Features

- Up to 4-Hour Ratings
- Water-Based Acrylic Latex – Easy clean-up
- Elastomeric (Flexible Cure)
- Paintable
- Water Resistant
- Acoustically Tested – Reduces noise transmission

### ➤ Physical Properties

- Color.....Red
- Coverage.....65 sq. ft. per 5-gallon pail
- Weight.....10.5 Lbs. Per gallon
- Viscosity.....24m cps maximum
- Application Temp...40°F (4°C) to 90°F (32°C)
- Solids.....54%
- PH.....8.0 – 9.0
- STC Rating.....52

### ➤ Test Compliance

- ASTM E84 Flame spread.....0  
Smoke developed.....0
- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E814 and UL1479 Test method for through-penetration firestops.
- ASTM E1399 Test method for cyclic movement and measuring min. and max. joint width.
- ASTM E1966 and UL2079 Test method for fire resistance of building joint systems.

### ➤ Testing Data

For specific test criteria, refer to the UL Fire Resistance Directory and Omega Point Laboratories Directory.

### ➤ Storage & Handling

Nelson FSC3™ should be stored at temperatures between 40°F (4°C) and 90°F (32°C). Do not dilute. Protect from freezing. Expected shelf life is one year from date of shipment.

### ➤ Cautions

Wear eye protection. Do not spray gun at any part of the body. Fluid at high pressure can penetrate the skin and cause internal injury. Observe spray equipment manufacturer's instructions and warnings. In case of an injury, obtain medical attention immediately.

### ➤ Related References

Underwriters Laboratories Inc. "Fire Resistance Directory" and Omega Point Laboratories "Directory of Listed BUILDING PRODUCTS, MATERIALS & ASSEMBLIES". Application details are available in AutoCAD® format on request.

## **NELSON FIRESTOP PRODUCTS**

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Tulsa, OK 74101

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## ➤ INSTALLATION INSTRUCTIONS

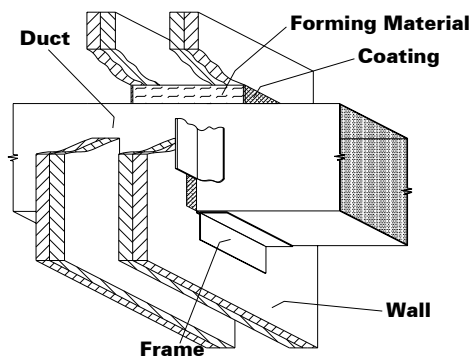
**GENERAL:** Areas to be protected must be clean and free of oil, loose dirt or rust. Installation temperatures must be between 40°F (4°C) and 90°F (32°C).

**APPLICATION SYSTEM SELECTION:** Selection of an appropriate firestop application system design is critical to the fire protection process. Please consult the Nelson Firestop directory and application guide as well as the UL® Fire Resistance Directory for additional information.

**FORMING:** Tightly pack min. 4pcf mineral wool batt insulation into the annular space. The insulation should be compressed 50% in the nominal joint and compressed 33% or 25% (see specific UL system for compressed percentage) into the fluted area and flush with both surfaces of the wall. In perimeter joint systems, the insulation should be compressed 25% in the nominal joint.

**FILL MATERIAL:** Apply Nelson Firestop Joint Coating (FSC3™) using an airless sprayer over the mineral wool insulation to a nominal 1/8" thick wet applied coating. In joint systems, overlap the coating 1/2" onto the wall and floor/roof. In perimeter joints, overlap the coating 1/2" onto the top surface of the floor and curtain wall a min. 1/2". In through penetrations, overlap the coating 1/2" onto the edges of the opening and the penetrant surfaces by a min. 1/2". In Wall-to-Wall or Head of Wall joint systems or wall through penetrations, the coating is applied to both sides of the wall.

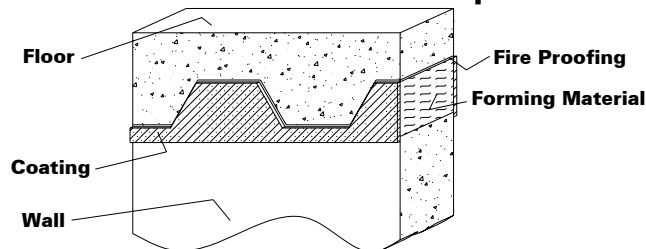
### UL System No. W-L-7083 F Rating 1 or 2 Hr. T Rating 0 Hr.



- WALL ASSEMBLY - Constructed in the manner specified in the U300 or U400 series designs. The annular space is 0" (point contact) to 2".
- STEEL HVAC DUCT - 20" x 20", No. 24 gauge, steel duct.
- FORMING MATERIAL - Tightly pack min. 4pcf mineral wool batt insulation
- NELSON FSC3 COATING - Apply over the forming material to fill the annular space to a min. 1/8" depth on both sides of the wall. Overlap the coating onto the wall and duct a min. 1/2".
- METAL FRAME - Min. No. 22 GA galvanized steel angles sized to lap duct a min. of 2" and lap wall surfaces a min. 1-1/2".

DWG NO. **FS-0400 R1**

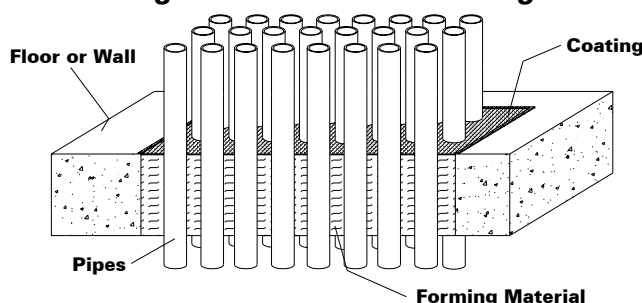
### UL System No. HW-D-0308 F Rating 2 or 3 Hr. Nominal Joint Width - 1" Class II Movement - 25% Compr & Ext



- FLOOR ASSEMBLY - Min. 2-1/2" thick concrete floor.
- ROOF ASSEMBLY (not shown) - As an alternate to the floor assembly, a fire-rated steel deck roof assembly may be used.
- ROOF INSULATION (not shown) - As specified in the individual P700 series design.
- SPRAY-APPLIED FIRE PROOFING - The steel roof deck shall be sprayed with the thickness of material specified in the individual P700 series design. Also may be used as an alternate to the forming material.
- WALL ASSEMBLY - Min. 6" thick concrete wall or CMU block wall. The max. separation between bottom of floor and top of wall is 1".
- FORMING MATERIAL - Tightly pack min. 4pcf mineral wool batt insulation into the annular space.
- FORMING MATERIAL (Plugs) (not shown) - Mineral wool plugs may be used.
- NELSON FSC3 COATING - Apply over the fireproofing or forming material in the joint to a nominal 1/8" thick wet applied coating. Overlap the coating 1/2" onto the wall and protected steel floor or roof deck on both sides of the wall.

DWG NO. **FS-0387 R1**

### UL System No. C-AJ-1441 F Rating 2 Hr. T Rating 0 Hr.



- FLOOR or WALL ASSEMBLY - Min. 4-1/2" concrete floor or wall, or CMU block wall. The max. size of opening is 864 sq. in. with a max. dimension of 48". Opening may contain any combination of 24 pipes.
- METALLIC PIPES OR CONDUITS - Max. (24) 4" steel, cast iron, RMC, EMT or 1-1/2" Type L copper tubing. Annular space shall be 5/16" to 2-1/2" between penetrants and 0" (point of contact) to 2" between periphery of opening and pipes.
- FORMING MATERIAL - Tightly pack min. 4pcf mineral wool batt insulation.
- NELSON FSC3 COATING - Apply by spray, trowel, or brush over the forming material to a nominal 1/8" thick wet applied coating. Overlap the edges of the opening and the penetrant surfaces by a min. 1/2".

DWG NO. **FS-0458 R0**

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