



CPS™ Composite Sheet

Technical Data

➤ Product Description

Nelson Composite Sheet (CPS™) is a rigid, elastomeric, fire resistant panel used to seal penetrations and maintain the rating of fire rated floors or walls. It consists of a rigid panel, primarily composed of a 5/16" thick elastomeric sheet, bonded to a 28 gauge galvanized steel sheet on one side. The composite sheet is reinforced with hexagonal shaped steel wire mesh and bonded with .003" aluminum foil on the back side.

➤ Application

CPS™ is selected according to the size of the opening to be firestopped. A variety of sizes are available. It may be cut for fit over the opening and penetrating items. Nelson CPS™ is ideally suited for applications for cable tray penetrations, large floor or wall openings and telecommunications or power cable systems. Actual installation should be in accordance with the appropriate Nelson application system drawing.

➤ Availability

- AA545 - 5/16" x 24" x 36"
- AA546 - 5/16" x 36" x 36"
- AA547 - 5/16" x 36" x 41"
- AA548 - 5/16" x 16" x 28"
- AA549 - 5/16" x 12" x 24"

➤ Approvals

Underwriters Laboratories Inc., Fill, Void or Cavity Material (XHHW) and (XHHW7)
Factory Mutual (FM)
City of New York, New York, Department of buildings

- MEA 236-87-M Vol. 2

➤ Features

- Up to 2-Hour Ratings
- Unlimited Shelf Life
- Easy to Install
- Highly Intumescent
- Easily Fabricated
- Self Supporting Panels

➤ Physical Properties

- Asbestos Filler None
- Solvents None
- Hazardous Ingredients None
- Intumescent Expansion Activation Temp. Initial >250°F
- VOC Content Negligible
- Volume Increase 4 to 10 times
- Material Thickness (0.28" to 0.36")

➤ Test Compliance

- ASTM E119 and UL263, Fire Tests of Building Construction and Materials
- ASTM E814 and UL1479, Test method for through stop fire penetrations.

➤ Testing Data

For specific test criteria, refer to the UL Fire Resistance Directory.

➤ Storage & Handling

Nelson CPS™ should be stored in dry, covered locations at no greater temperature than 120°F (49°C). There is no indication of shelf life limitations.

➤ Limitations

Nelson CPS™ should not be exposed to harmful chemicals. Service temperature shall not exceed 180°F (82°C).

➤ Related References

Underwriters Laboratories Inc. "Fire Resistance Directory". Application details are available in AutoCAD® format on request.



➤ INSTALLATION INSTRUCTIONS

GENERAL: Areas to be protected must be clean and free of oil, loose dirt or rust.

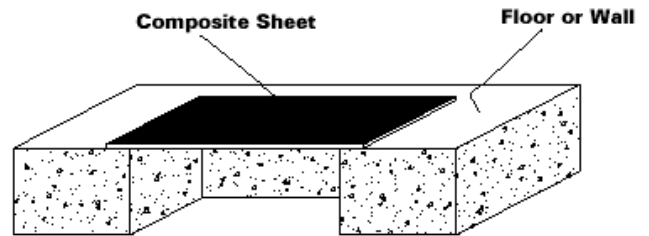
APPLICATION SYSTEM SELECTION: Selection of an appropriate firestop application system design is critical to the fire protection process. Please consult the Nelson Firestop directory and application guide as well as the UL® Fire Resistance Directory for additional information.

COMPOSITE SHEET: Nelson (CPS™) composite sheet is applied to the top side or bottom side of floor or to both sides of the wall with the foil side facing the opening.

TOPSIDE – Overlap the opening by a min. 2” on all sides. Mount with 3/8” diameter x min. 1-7/8” steel masonry anchors spaced a max. of 5” on center.

BOTTOMSIDE - Overlap the opening by a min. 3-1/2” on all sides. Mount with 1/4” diameter x min. 1-1/4” steel masonry anchors in conjunction with 1/4” x 1-1/4” diameter steel fender washers spaced a max. of 5” on center.

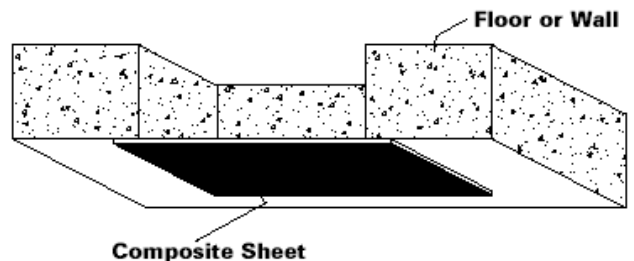
UL System No. C-AJ-0049 F Rating 2 Hr. T Rating 3/4 Hr.



- FLOOR or WALL ASSEMBLY - Min. 4-1/2” thick concrete floor or wall, or CMU wall. The max. area of the opening is 126 sq. in. with a max. dimension of 18”.
- NELSON CPS COMPOSITE SHEET - Apply to the top side of the floor or to both sides of the wall or HOLLOW-CORE floor, with the foil side facing the opening. Overlap the opening by a min. 2” on all sides. Mount with 3/8” diameter x min. 1-7/8” steel masonry anchors spaced a max. of 5” on center.
- SEALANT (optional, not shown) - Apply CLK sealant around the perimeter of the composite sheet for added smoke seal protection.

DWG NO. FS-0169 R4

UL System No. C-AJ-0050 F Rating 2 Hr. T Rating 0 Hr.



- FLOOR or WALL ASSEMBLY - Min. 4-1/2” thick lightweight or normal weight concrete floor or wall, or CMU block wall. The max. area of the opening is 127 sq. inches with a max. dimension of 18”.
- NELSON CPS COMPOSITE SHEET - Apply to the under side of the floor or to both sides of the wall with the foil side facing the opening. Overlap the opening by a min. of 3-1/2” on all sides. Mount to the floor or wall with 1/4” x min. 1-1/4” long steel masonry anchors in conjunction with 1/4” x 1-1/4” diameter steel fender washers spaced a max. of 5” OC.
- SEALANT (optional, not shown) - Apply Nelson CLK sealant around the perimeter of the composite sheet for added smoke seal protection.

DWG NO. FS-0176 R3