

SEQ CHAPTER \h\r 1 SECTION 09 2919

FIRE-RATED DEFLECTION SYSTEMS

This section includes editing notes to assist the user in editing the section to suit project requirements. These notes are included as hidden text, and can be revealed or hidden by one of the following methods:

Microsoft Word: From the pull-down menus select TOOLS, then OPTIONS. Under the tab labeled VIEW, select or deselect the HIDDEN TEXT option.

Corel WordPerfect: From the pull-down menus select VIEW, then select or deselect the HIDDEN TEXT option.

HYPERLINK "mailto:firestik@cemcosteel.com," HYPERLINK "http://www.firestik.us" - GENERAL

SUMMARY

Section Includes:

Fire-rated closures for interior non-load-bearing partition head-of-wall joints.

Related Sections:

Division 01: Administrative, procedural, and temporary work requirements.
Section [04 2000 - Unit Masonry:] [_____ - _____:] [Brick] [Concrete unit masonry] [_____] partitions.

Section [07 8100 - Applied Fireproofing:] [_____ - _____:] Spray-applied fireproofing for structural members.

Section [07 8400 - Firestopping:] [_____ - _____:] Mineral fiber stuffing.

Section [09 2200 - Metal Support Assemblies:] [_____ - _____:] Metal stud-framed partitions.

REFERENCES

ASTM International (ASTM) HYPERLINK "http://www.astm.org" :

A653/A653M-06a - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

A1003-02 - Standard Specification for Steel Sheet, Carbon Metallic and Nonmetallic-Coated for Cold-Formed Metal Framing.

E90-04 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

E119-07 - Standard test Methods for Fire Tests of Building Construction and Materials.

E814-06 - Standard Test Method for Fire Tests of Through-Penetration Firestops.

E1966-01 - Standard Test Method for Fire-Resistive Joint Systems.

Underwriters Laboratories, Inc. (UL) HYPERLINK "http://www.ul.com" :

Listed Product Directory.

2079 - Fire Resistance of Building Joint Systems.

Warnock Hersey International (WHI) HYPERLINK "http://www.intertek-etlsemko.com" -

Listed Product Directory.

SYSTEM DESCRIPTION

Performance Requirements:

Movement capability: Level [I,] [II,] [III,] tested to UL 2079.

Allowable deflection of overhead structure: [1/2 inch] [3/4 inch] [1 inches] [2 inches] without damage to firestopping.
Acoustical performance: Minimum STC rating of 52, tested to ASTM E90 with firestopping applied to both sides of partition head.
Air leakage: Maximum 1 CFM per linear foot, tested to UL 2079.

SUBMITTALS

Submittals for Review:

Shop Drawings:

Indicate partition locations and construction, firestopping configuration, and relationship to adjacent construction.

Include UL or WHI details for each firestopping system.

Test Reports: Indicate conformance with ASTM E90, ASTM E119, ASTM E814, ASTM E1966, and UL 2079.

Quality Control Submittals:

Certificates of Compliance: Indicate conformance of installed systems with specified requirements.

Sustainable Design Submittals:

Recycled Content.

Regional Materials.

QUALITY ASSURANCE

Firestopping System: Fire resistance rating [of [1 hour] [2 hours];] [equivalent to adjacent construction;] tested to ASTM E119, ASTM E814, ASTM E1966, and UL 2079 by an accredited national testing laboratory.

Mockups:

Provide mockups of each partition head condition.

Size: Minimum 8 feet long.

Show: Partition construction, overhead structure, and partition head firestopping.

Locate [where directed.] [____.]

Approved mockups may [not] remain as part of the Work.

Pre-Installation Conference:

Convene at site [2] [__] weeks prior to beginning work of this Section.

Attendance: Architect, Contractor, firestopping installer, and related trades.

Review and discuss: Contract Documents, fire rating requirements, manufacturer's literature, job conditions, scheduling, and other matters affecting application.

Tour representative areas of firestopping substrates; discuss substrate construction, related work, work conditions, and protection after application.

- PRODUCTS

MANUFACTURERS

Contract Documents are based on Model [FS1] [FS2] FireStik by CEMCO.

Substitutions: [Under provisions of Division 01.] [Not permitted.]

MATERIALS

Galvanized Steel Sheet:

Meet ASTM A1003, Type NS, Grade 33, and A653/A653M, Grade 33, Class G40

hot dip galvanized.

Recycled content: Minimum [26] [] percent, with minimum [12] [] percent classified as post consumer and minimum [14] [] percent classified as post industrial.

Intumescent Strip:

Odor-free, cured 0,079 inch thick material.

Expand to minimum 35 times original size and hard char at temperatures over 300 degrees F.

COMPONENTS

Fabricate firestopping from minimum 20 gage (0.030 inch thick) galvanized steel sheet to [1.50 x 1.40] [1.50 x 2.25] inches.

Provide 90 degree angled, 45 degree angled, or flat profiles to suit project conditions.

Factory adhere intumescent strip to exterior face.

ACCESSORIES

Fasteners:

To bare concrete or metal decking: Minimum 3/4 inch long power actuated fasteners or concrete anchors.

Through sprayed fireproofing: 0.145 inch diameter x 1.25 inch long power actuated fasteners or concrete anchors.

For metal-to-metal attachment: Minimum No. 6 metal framing screws.

- EXECUTION

INSTALLATION

Install firestopping at heads of fire rated partitions.

Select firestopping profile to suit installation conditions.

Install in accordance with manufacturer's instructions and approved Shop Drawings.

Place strips with protruding legs in contact with gypsum board or sheathing.

Locate intumescent strip facing to outside of partition.

Place firestopping on both sides of partitions.

Butt ends and intersections tight.

Fasten to overhead structure at maximum 24 inches on center.

Fill voids between firestopping and metal decking with [sprayed fireproofing as specified in Section [] [07 8100] [or] [mineral fiber stuffing as specified in Section [] [07 8400]].

END OF SECTION

Fire-Rated Deflection System

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