

SECTION 07840 - FIRESTOPPING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Firestopping in rated assemblies.
- B. Related Requirements:
 - 1. Section 09250 - Gypsum Board.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. ASTM International (ASTM):
 - 1. ASTM E814 - Test Methods for Fire Tests of Through Penetration Fire Stops.
- C. FM Global (FM):
 - 1. FM 4991 – Standard for the Approval of Firestop Contractors
- D. Underwriters' Laboratories, Inc. (UL):
 - 1. UL 1479 - Fire Tests of Through-Penetration Firestops.
 - 2. UL 2079 – Tests for Fire Resistance of Building Joint Systems.
 - 3. UL Fire Resistance Directory:

1.3 SUBMITTALS

- A. Submittals: Comply with the requirements of Section 01330.
- B. Certifications:
 - 1. Installer Qualifications. Submit documentation of Designated Responsible Individual (DRI) or letter from firestop manufacturer naming approved installer to Architect prior to commencement of firestop work.
 - 2. Manufacturer's Inspection. Submit written certification from firestop manufacturer that Manufacturer's Representative has visited Site as specified in Part 3 and Work is in accordance with manufacturer's requirements and published instructions.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Installation of firestopping shall be by a Designated Responsible Individual (DRI) in accordance with FM 4991 or shall be an approved installer by the Firestop Manufacturer.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Transport, handle, store, and protect products in compliance with the requirements of Section 01600 and manufacturer's recommendations.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide firestopping products as manufactured by one of the following:
1. Nelson Firestop Products, (800) 331-7325.
 2. Hilti, Inc, (800) 879-8000.
 3. RectorSeal Corporation, (800) 231-3345.
 4. Specified Technologies, Inc. (STI), (800) 992-1180.
 5. 3M Fire Protection Products, (800) 376-0964.
 6. Tremco Firestop System, (800) 852-8173.

2.2 REGULATORY REQUIREMENTS

- A. Firestop materials shall have been tested with and shall be in compliance with the minimum requirements of ASTM E814, UL 1479, and UL 2079 as applicable. Products used shall be as listed below as suitable for the intended application and as required to produce the fire rating as shown on the drawings and to conform to the Firestopping Schedule of UL assemblies included at the end of this Section.

2.3 MATERIALS

- A. Intumescent Latex or Acrylic Sealant: Single-component, intumescent, latex or acrylic formulation.
1. LBS, by Nelson Firestop Products.
 2. FS ONE or CP 606, by Hilti.
 3. Metacaulk 950 or 1000, by RectorSeal.
 4. SpecSeal SSS100, by STI.
 5. CP 25WB+, IC 15WB, or 3000WT by 3M.
 6. TREMstop Intumescent Acrylic (IA) or Acrylic (A), by Tremco.
- B. Intumescent Wrap/Strip: Single-component, elastomeric sheet with aluminum foil on one face.
1. WRS, by Nelson Firestop Products.
 2. CP 648 Wrap Strip, by Hilti.
 3. Metacaulk Wrap Strip, by RectorSeal.
 4. SpecSeal SSWRED Wrapstrip, by STI.
 5. FS-195+ Wrap/Strip or Ultra GS, by 3M.
 6. TREMstop WS, by Tremco.
- C. Intumescent Putty: Single-component, non-hardening, dielectric, intumescent putty.
1. FSP, by Nelson Firestop Products.
 2. CP 618 Putty Stick or CP 617/617L Putty Pad, by Hilti.
 3. CP 648 Wrap Strip, by Hilti.
 4. CFS-PL Firestop Plug, by Hilti.
 5. Metacaulk Fire Rated Putty, by RectorSeal.
 6. SpecSeal Putty, by STI.
 7. Moldable Putty+, by 3M.
 8. TREMstop MP (Moldable Putty) or Putty Stick by Tremco.
- D. Silicone Sealant: Single-component, moisture-curing, silicone-based elastomeric, non-sag grade.
1. CLK N/S, by Nelson Firestop Products.
 2. CP 601S, by Hilti.
 3. Metacaulk 835, by RectorSeal.
 4. SpecSeal PEN 300, by STI.
 5. 2000+ Silicone, by 3M.
 6. FYRE SIL, by Tremco.
- E. Silicone or Polyurethane Foam: Two-Component, liquid elastomer that, when mixed, expands and cures in place

to produce a flexible, nonshrinking foam.

1. SpecSeal PEN 200, by STI.
2. CP 620 Fire Foam, by Hilti.

F. Intumescent Collar: Factory-fabricated, intumescent collar.

1. PCS, by Nelson Firestop Products.
2. CP 643 or CP 644, by Hilti.
3. Metacaulk Pipe Collar, by RectorSeal.
4. SpecSeal SSC Collars, by STI.
5. Plastic Pipe Device, Ultra Plastic Pipe Device, Tuck In Wrap Strips, or RC-1 Collar by 3M.
6. TREMstop D, by Tremco.

G. Intumescent Composite Sheet, Pillows and Mortar, or Blocks: Products used to firestop large openings.

1. CPS, by Nelson Firestop Products.
2. CFS-BL Fireblocks, by Hilti.
3. CP 637 Firestop Mortar, by Hilti.
4. CP 675T Firestop Board, by Hilti.
5. SpecSeal SSB Pillows and SpecSeal SSM Firestop Compound, by STI.
6. CS-195+ Composite Sheet, by 3M.
7. TREMstop PS, by Tremco.

H. Sprayable Fire-Rated Mastic: Products used to firestop construction joints.

1. CP672 Speed Spray, by Hilti.
2. Specseal Elastomeric Spray, by STI.
3. Firedam Spray 200, by 3M
4. TREMstop Acrylic Spray (A-SP) by Tremco.

I. Packing Material: Manufacturer's standard mastic, putty, ceramic fiber blanket, or mineral wool to be used as fill or backing material for firestopping.

1. Mineral Wool, by Nelson Firestop Products.
2. Mineral Wool, by Hilti.
3. Fire Safing or Backer Rod, by RectorSeal.
4. Mineral Wool, by STI.
5. Fire Barrier 5A, 615+ Duct Wrap, or PM4 Packing Material by 3M.
6. TREMstop FS Blanket, by Tremco.
7. CP 767 Speed Strips and CP 777 Speed Plugs, by Hilti. (preformed mineral wool designed for top of wall fluted metal deck packing material)

J. Substitutions: Comply with the requirements of Section 01600.

PART 3 EXECUTION

3.1 PREPARATION

- A. Remove loose dirt and oil from penetration surfaces.
- B. Place hangers or damming materials in penetration to hold firestopping materials, if necessary.

3.2 INSTALLATION

- A. Keep caulk and putty away from heat, open flame, sparks, or other sources of ignition during application and until product cures. Use only with adequate ventilation.
- B. Follow manufacturer charts for appropriate material to achieve required fire rating in various locations.
- C. Install firestopping at penetrations of fire rated wall materials in accordance with manufacturer's published

instructions.

- D. Install firestopping at penetrations and construction joints of fire rated walls and floors in accordance with manufacturer's published instructions and in accordance with UL Fire Resistance Directory.

3.3 FIELD QUALITY CONTROL

- A. Site Inspection: Upon completion of installation, , Manufacturer's Representative shall inspect installed firestopping to verify work complies with the manufacturer's requirements.

3.4 FIRESTOPPING SCHEDULE

- A. Provide firestopping complying with UL assemblies specified below.

| Penetration | Assembly | Nelson | Hilti | RectorSeal | STI | 3M | Tremco |
|---|----------------------------------|--------------------|--------------------------------|--------------------|--------------------------|--------------------|--|
| Metal Pipe | CMU Wall 8" Thick or Less | CAJ1203 | CAJ 1149 or CAJ1155 or CAJ1226 | CAJ1114 or CAJ1115 | CAJ1079 or CAJ1217 | CAJ1001 or CAJ1009 | CAJ1064 or CAJ1302 |
| | Gypsum Board Partition | WL1083 or WL1030 | WL1054 or WL1058 or WL1297 | WL1026 or WL1034 | WL1049 or WL1079 | WL1003 or WL1009 | WL1278 or WL1158 |
| Non-Metallic Pipe | CMU Wall 8" Thick or Less | CAJ2086 | CAJ2110 or CAJ2109 or CAJ2567 | WJ2025 | CAJ2064 or CAJ2045 | CAJ2005 | CAJ2223 or CAJ2184 |
| | Gypsum Board Partition | WL2071 | WL2098 or WL2078 or WL2341 | WL2104 | WL2093, WL2029 or WL2288 | WL2002 or WL2005 | WL2083 or WL2129 |
| Cable Tray | CMU Wall 8" Thick or Less | CAJ8049 or CAJ4033 | CAJ4035 or CAJ4017 | CAJ8043 | CAJ4020 or CAJ4029 | CAJ4003 | CAJ4075 |
| | Gypsum Board Partition | WL4003 | WL4011 or WL4019 | ---- | WL4005 or WL4008 | WL4004 | WL3043 or WL3131 |
| Insulated Metal Pipe | CMU Wall 8" thick or Less | CAJ5008 or CAJ5059 | CAJ5090 or CAJ5091 or CAJ5048 | WJ5016 or CAJ5070 | CAJ5021 or CAJ5029 | CAJ5001 or CAJ5002 | CAJ5121 or CAJ5111 |
| | Gypsum Board Partition | WL5036 | WL5028 or WL5029 or WL5257 | WL5057 | WL5014 or WL5051 | WL5001 | WL-5115 WL-5081 |
| Construction Gaps - Head of Wall to Roof Deck | CMU Wall to Metal Deck | ---- | HWD0098 or HWD0181 or HWD1037 | HWD0235 | ---- | HWD0013 | HWD0092 |
| | Gyp Bd Parti'n to Metal Deck | ---- | HWD0042 or HWD0049 | HWD0014 | ---- | HWS0003 | HWD0091 |
| Construction Gaps - Wall to Wall | CMU Wall to CMU Wall | ---- | WWD1011 or WWD1012 or WWD1017 | ---- | ---- | WWS1001 | WWD1050, WWD0043, TL/PV60-01 or WWD-1052 |
| | Gyp Bd Parti'n to Gyp Bd Parti'n | ---- | WWD0067 | ---- | ---- | WWS0004 | ---- |

END OF SECTION