

System No. W-L-4056

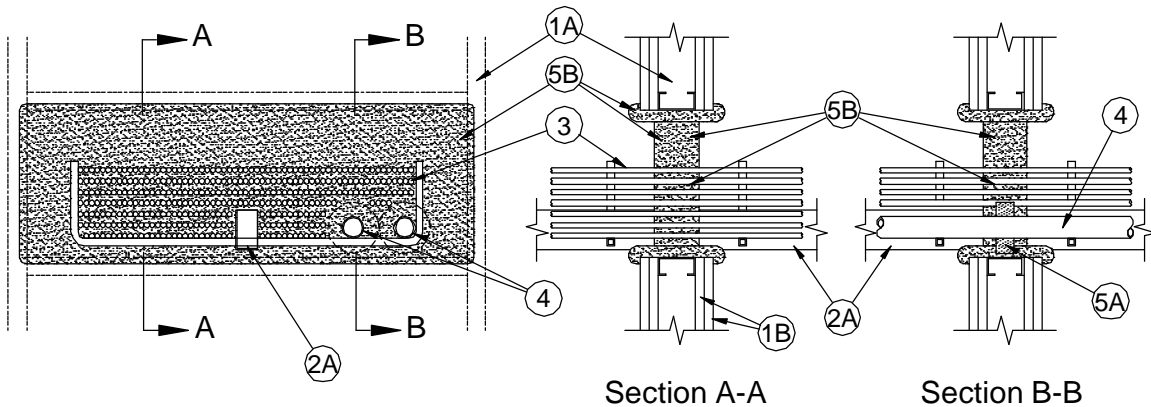
August 2008

F Ratings - 1 and 2 Hr (See Item 1)

T Ratings — 0 and 1/2 (See Items 1 and 2)

L Rating At Ambient — 16 CFM/sq ft

(UL/cUL)



1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. **Gypsum Board*** — 5/8 in. (16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max size of opening is 300 sq in. (1935 sq cm) with max dimension of 30 in. (762 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. The T rating is 0 hr for 1 hr rated walls and 1/2 hr for 2 hr rated walls.

2. **Through-Penetrants** — One cable tray to be installed within the firestop system. Cable tray to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of cable tray may be used:
 - A. **Cable Tray*** — Max 24 in. (610 mm) wide by max 6 in. (152 mm) deep center spline cable tray with max 2-3/4 by 1-1/2 in. (70 by 38 mm) center tube and nom 1/2 by 1/2 in. (13 by 13 mm) tube-shaped rungs spaced 9 in. (229 mm) OC, both formed of min 0.062 in. (1.6 mm) thick aluminum or min 0.040 in. (1 mm) thick (No. 20 MSG) galvanized steel. The annular space between the ends of the cable tray and the periphery of the opening shall be a nom 3 in. (76 mm). The annular space between the long sides of the cable tray and the periphery of the opening shall be a min of 1/2 in. (13 mm) and a max of 3-1/2 in. (89 mm).

The T rating is 0 hr for steel cable trays.
3. **Cables** — Aggregate cross-sectional area of cables in cable tray to be max 31 percent of the cross-sectional area of the cable tray based on a max 6 in. (152 mm) cable loading depth within the cable tray. The annular space between the cables and the periphery of the opening shall be a min of 1/2 in. (13 mm) to a max of 3-1/2 in. (89 mm). Any combination of the following types and sizes of copper conductor cables may be used:
 - A. Max 24-62.5/125 micron fiber optic (F.O.) cable with PVC insulation and jacket.
 - B. RG59/U (or smaller) coaxial cable with fluorinated ethylene (FE) or PVC insulation and jacket.
 - C. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with Hylar jacket and insulation.

- D. Max 3/C with ground No. 10 AWG (or smaller) copper conductor NM cable with PVC insulation and jacket materials.
- E. Through Penetrating Product* — Max 4/C plus grd No. 14 AWG (or smaller) Metal-Clad Cable+.

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- F. Through Penetrating Product* — Max 4/C plus grd No. 12 AWG (or smaller) copper conductor Metal-Clad Cable+ with aluminum armor.

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- 4. **Optical Fiber Raceway+** — One or more max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceways (innerduct) formed from polyvinyl chloride (PVC) or polyvinylidene fluoride (PVDF) with fiber optic cable fill. Raceways installed in accordance with Article 770 of the National Electrical Code (NFPA No. 70). Raceways may be used in addition to the cable types listed in Item 3.

See **Optical Fiber Raceway (QAZM)** category in the Electrical Construction Equipment Directory for names of manufacturers.

- 5. **Firestop System** — The firestop system consists of the following items:

- A. **Fill, Void or Cavity Material*** — Ring of sealant to be applied around the outer diameter of each optical fiber raceway (Item 4) at center of wall thickness. Sealant to be min 1 in. (25 mm) thick by min 1-1/4 in. (32 mm) depth. To aid in installation of sealant, a sheet steel or equivalent form may be used. Form to be removed after sealant sets.

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- B. **Fill, Void or Cavity Material*** - Putty — Min 3/4 in. (19 mm) thick fill material to be tightly packed against all four sides of opening for the entire thickness of wall and lapping nom 1/2 in. (13 mm) around periphery of opening onto both faces of wall. Min 3/4 in. (19 mm) thickness by min 3 in. (76 mm) depth of fill material firmly packed in opening between each layer of cables. Fill material to be centered in thickness of wall and packed to the max extent possible between and around the cables and between cables and center tube of center spline cable tray. Min 3 in. (76 mm) depth of fill material centered in the wall thickness and tightly packed between cables/cable tray and periphery of opening to fill remaining annular space.

TREMCO INC — TREMstop Putty

*Bearing the UL Classification Mark

+ Bearing UL Listing Mark



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3735 Green Road, Beachwood, OH 44122 // Phone: 216.292.5000 // 800.321.7906
220 Wicksteed Avenue, Toronto, ON M4H 1G7 // Phone: 416.421.3300 // 800.363.3213
1451 Jacobson Avenue, Ashland OH 44805 // Phone: 419.289.2050 // 800.321.6357