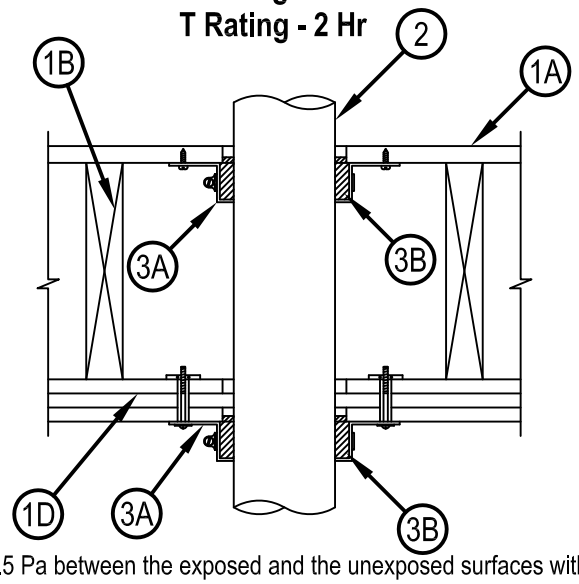
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-C-2029

F Rating - 2 Hr
T Rating - 2 Hr



System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor-Ceiling Assembly — The fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L 500 Series Floor-Ceiling Design in the UL Fire Resistance Directory, as summarized below:
   A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design.
   B. Wood Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
   C. Furring Channels — (Not Shown) — (As required) Resilient galvanized steel furring installed in accordance with the manner specified in the individual L500 Series Designs in the Fire Resistance Directory.
   D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design.
2. Through-Penetrants — One nonmetallic pipe, conduit or tubing to be installed within the firestop system. Diam of openings hole-sawed through flooring system and through two layers gypsum wallboard ceiling to be 0 to 1/2 in. (13 mm) larger than the outside diam of through-penetrant. Pipe or conduit to be rigidly supported on both sides of the floor-ceiling assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid-core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. Firestop System — The details of the firestop system shall be as follows:
   A. Steel Collar — Collar fabricated from coils of precut min 0.017 in. (0.43 mm) thick (No. 28 MSG) galv steel available from the sealant manufacturer. Collar shall be nom 1-3/4 in. (44 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchors tabs on 2 in. (51 mm) centers for securement to floor and ceiling surfaces. The anchor tabs shall be bent 90 degree outward for securement to the floor and ceiling surfaces. The opposite side incorporates retainer tabs, 1/2 in. (13 mm) wide by 3/16 in. (5 mm) long, prebent toward the pipe surface. Collar shall be wrapped around pipe maintaining a 1 in. (25 mm) distance between pipe and collar, and overlapping min 1 in. (25 mm) at seam. Collar secure to subfloor with wood screws and washers at every other tab. Collar secured to gypsum board ceiling using 3/16 in. (5 mm) diam steel toggle bolts in conjunction with 1-1/4 in. (32 mm) diam steel fender washers at every other tab. After sealant is installed (Item 3B), the collars shall be compressed around the pipe using a 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel band clamp fastened at the collar mid-height.
   B. Fill, Void or Cavity Material* — Sealant — Fill material to be installed to completely fill the collar and provide a min 1/4 in. (6 mm) thickness in the annular spaces at the floor and ceiling.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.