| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
| :--- | ---: |
| F Ratings - 1 and 2 Hr (See Item 1) | F Ratings - 1 and 2 Hr (See Item 1) |
| T Rating - 0 Hr | FT Rating - 0 Hr |
| L Rating At Ambient — Less Than 1 CFM/sq ft | FH Ratings —1 and 2 Hr (See Item 1) |
| L Rating At 400 F — Less Than 1 CFM/sq ft | FTH Rating —0 Hr |



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 specified if the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the Fire Resistance Directory and shall include the following construction features:
A. Studs - Wall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 by 4 in. ( 51 by 102 mm ) lumber spaced $16 \mathrm{in} .(406 \mathrm{~mm})$ OC. Steel studs to be $\min 3-1 / 2 \mathrm{in} .(89 \mathrm{~mm})$ wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in . ( 610 mm ) OC.
B. Gypsum Board* — Nom $5 / 8$ in. ( 16 mm ) thick with square or tapered edges. The gypsum board type, number of layers and sheet orientation shall be as specified in the individual Wall and Partition Design Number. Diam of opening is nom 1-1/2, 2, 3 or 4 in . ( $38,51,76$ or 102 mm ).
The hourly Fand FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Metallic Sleeve - Nom 1-1/2, 2, 3 or 4 in . (38, 51, 76 or 102 mm ) diam steel conduit with threaded ends. Sleeve friction fit into wall and extending $\min 12 \mathrm{in} .(305 \mathrm{~mm})$ beyond wall surfaces. Sleeve rigidly supported on both sides of the wall assembly.
3. Firestop System - The firestop system shall consist of the following:
A. Fill, Void or Cavity Materials* - Plug - Nom 2, 2.5 or 4 in . ( 51,63 or 102 mm ) plug sized for the steel sleeve friction fit within the sleeve flush with the end of the sleeve on both sides of the wall assembly.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - CP 658T Firestop Plug or CFS-PL Firestop Plug

Underwriters Laboratories, Inc
to UL 1479 and CAN/ULC-S115

| Sleeve Diam | Nom Plug Size, in. (mm) |  |
| :--- | ---: | ---: |
| in. (mm) | CP 658T | CFS-PL |
| $1-1 / 2(38)$ | $2.5(63)^{* *}$ | $2(51)^{* *}$ |
| $2(51)$ | $2.5(63)^{* *}$ | $2(51)$ |
| $3(76)$ | $4(102)^{* *}$ | $4(102)^{* *}$ |
| $4(102)$ | $4(102)$ | $4(102)$ |

${ }^{* *}$ Cut wedge from plug to fit sleeve/opening size. See Hilti Installation Instructions for specific size of wedge cuts required.
B. Bushing - Nom 4 in. ( 102 mm ) diameter (or smaller) plastic or metal bushing threaded onto conduit to retain plug
C. Fill, Void or Cavity Material* - Sealant - (Not Shown) - At point contact, a min $1 / 2 \mathrm{in}$. ( 13 mm ) bead of fill material shall be applied at sleeve/wall interface when sleeve extends beyond surface of wall.
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.

Hilti Firestop Systems

