



Fire Protection Products

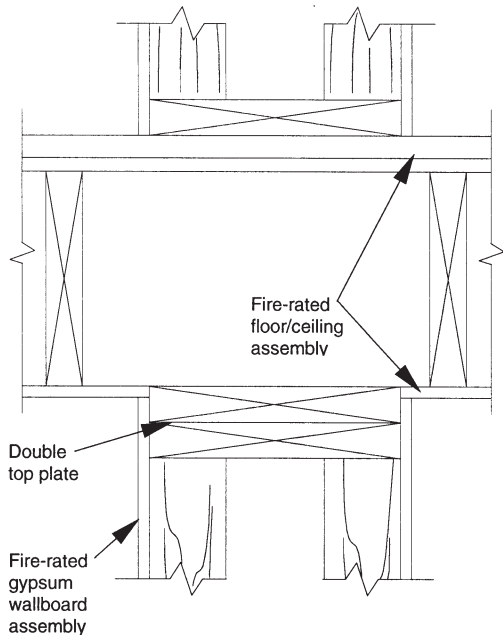
Wood Frame Construction

Firestopping Systems For Plastic Pipe



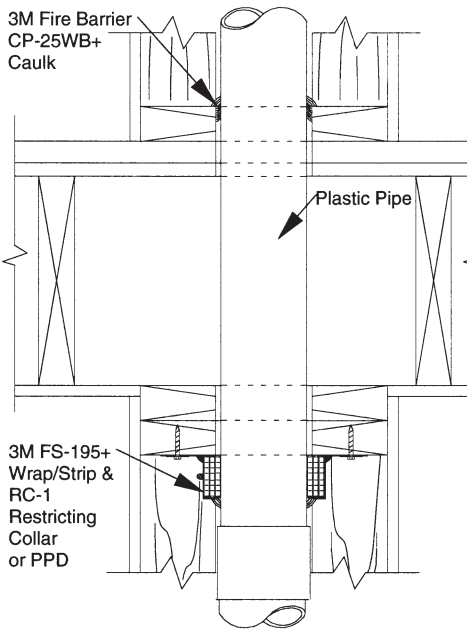
This information brochure highlights requirements for wood floor/ceiling assembly construction, wood chase wall construction and penetration firestopping for plastic pipe. The information contained herein is based on Underwriters Laboratories Inc.® published system requirements found in the current UL Fire Resistance Directory and engineering studies performed by UL referenced herein. Written requirements for system construction are intended only to highlight important features of different systems or methods and are not intended to describe all the requirements. Refer to current Underwriters Laboratories Inc.® Fire Resistance Directory and referenced engineering studies for additional information and system details.

Figure 1a – UL Fire-Rated Floor/Ceiling Assembly with Fire-Rated Chase Wall



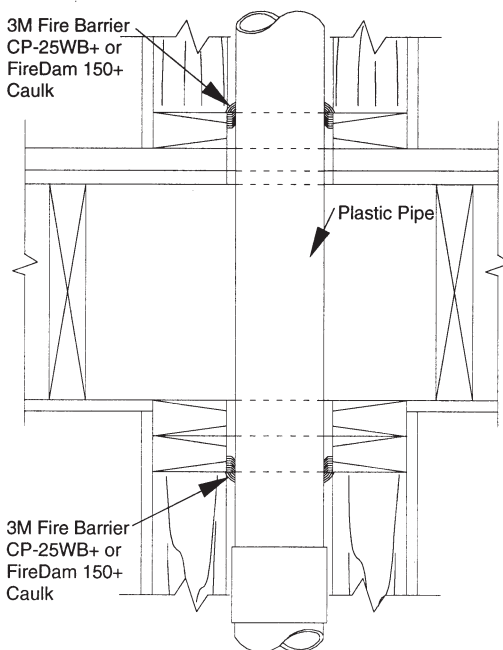
- Figure 1a meets UL requirements for L500 series floor/ceiling assembly construction.
- Double top plate required.
- Ceiling gypsum must be installed to abut top plate before wall gypsum installed.

Figure 1b – Penetration and Firestopping with PPD or RC-1 Restricting Collar



- If construction assembly matches Figure 1a, penetration can be firestopped according to Figure 1b.
- Firestopping in Figure 1b meets requirements of F-C-2028.
- Diameter of hole must match diameter of penetrant with annular space not greater than 1/4 inch (6 mm).
- PPD or RC-1 Restricting Collar must be used when annular space is 0 to 1/4 inch (0 to 6 mm)

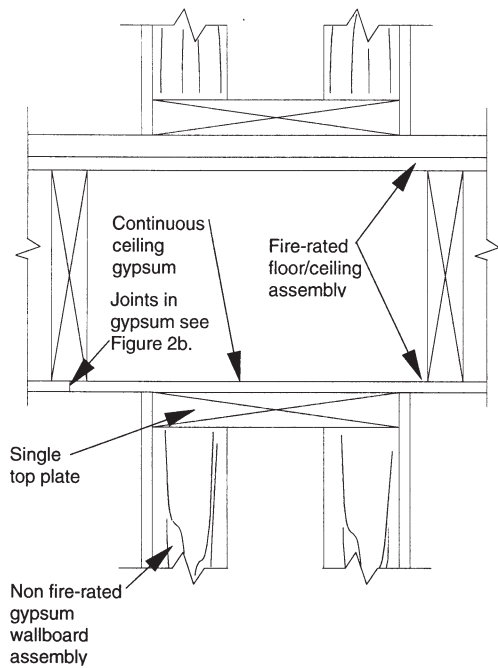
Figure 1c – Penetration and Firestopping with CP 25WB+ or FireDam 150+ Caulk



Important: This firestopping system can only be used if all the conditions described to the right exist exactly. If they do not, this system cannot be used.

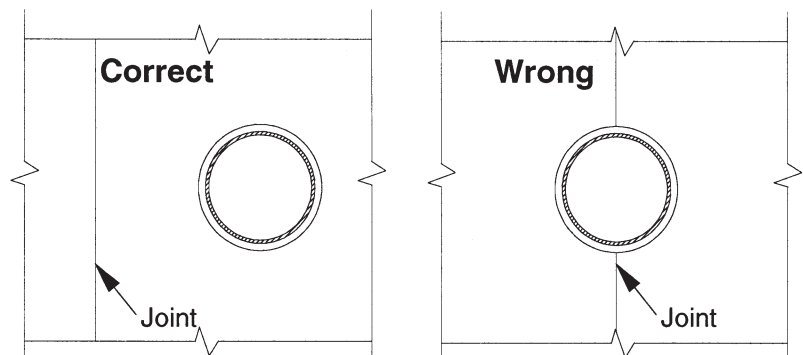
- If construction assembly matches Figure 1a and all of the conditions described below exist, the penetration can be firestopped according to Figure 1c.
- Firestopping in Figure 1c meets requirements of F-C-2134.
- Double top plate *and* chase wall construction required.
- Annular space from 0 to 1/2 inch (0 to 12 mm).
- Continuous point contact is allowed.

Figure 2a – UL Fire-Rated Floor/Ceiling Assembly with Non-Rated Chase Wall



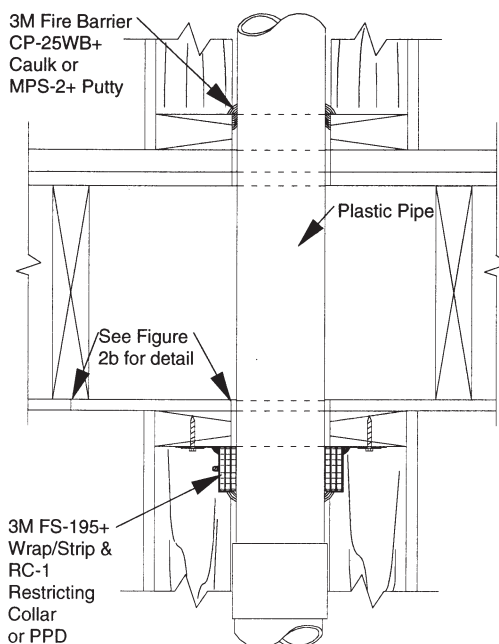
- Figure 2a meets UL requirements for L500 series floor/ceiling assembly and is based on UL Engineering Study R9700, 9-27-96, for wall and floor/ceiling assembly construction.
- Ceiling gypsum must be continuous when non-rated, single top plate wall construction is used.

Figure 2b – Gypsum Joint and Penetration Detail



Ceiling Plan View: Gypsum board joint must not occur at penetration opening. Joint must be away from the opening so gypsum is continuous around the opening.

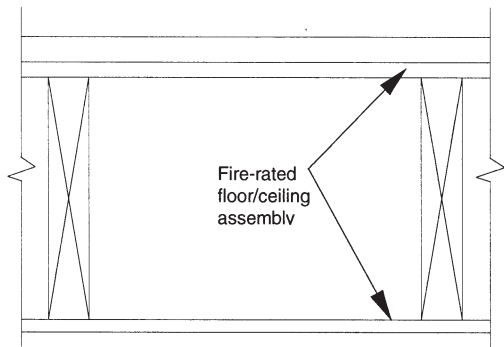
Figure 2c – Penetration and Firestopping with PPD or RC-1 Restricting Collar



The firestopping system shown in Figure 2c is approved for use with the assembly configuration shown in 2a and 2b above per UL Engineering Study R9700, 9-27-96 of F-C-2028, F-C-2039, F-C-3007, F-C-3017, F-C-8012, and F-C-8013. Refer to this study for additional details.

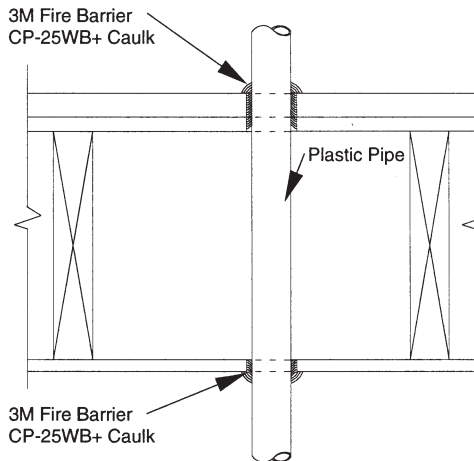
- If construction assembly matches Figure 2a and 2b, penetration can be firestopped according to Figure 2c.
- Firestopping in Figure 2c meets requirements of F-C-2028.
- Penetrations cannot be made at gypsum seams. See 2a and 2b above.
- Diameter of hole must match diameter of penetrant with annular space not greater than 1/4 inch (6 mm).

Figure 3a – UL Fire Rated Floor/Ceiling Assembly without Chase Wall



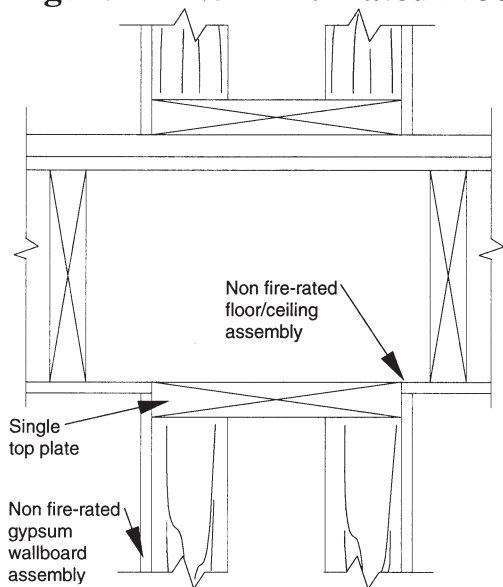
- Meets UL requirements for L500 series floor/ceiling assembly construction.
- Chase wall option can be used (see Figure 1a, 1c and 2a for chase wall assembly information).

Figure 3b – Penetration and Firestopping with CP 25WB+ Caulk



- If construction assembly matches Figure 3a, penetration can be firestopped according to Figure 3b.
- Firestopping in Figure 3b meets requirements of F-C-2039.
- For PVC, ccPVC, CPVC, ABC, ccABS drain waste vent (DWV) up to 1½" (38 mm).
- Caulk only.
- Point contact permitted.
- Opening can be 0" to 5/8" (0 to 16 mm) larger than pipe.

Figure 4 – Non Fire-Rated Floor/Ceiling and Chase Wall



This assembly configuration is not acceptable for fire-rated construction.

- Does not meet UL requirements for chase wall and floor/ceiling construction.
- To meet UL assembly construction requirements, chase wall must be constructed using double top plate (see Figure 1a) or ceiling gypsum must be continuous when using single top plate construction (see Figure 2a).



Through-Penetration Firestop Systems Classified by Underwriters Laboratories Inc. See UL Fire Resistance Directory and R9700, 9-27-96 for details.

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