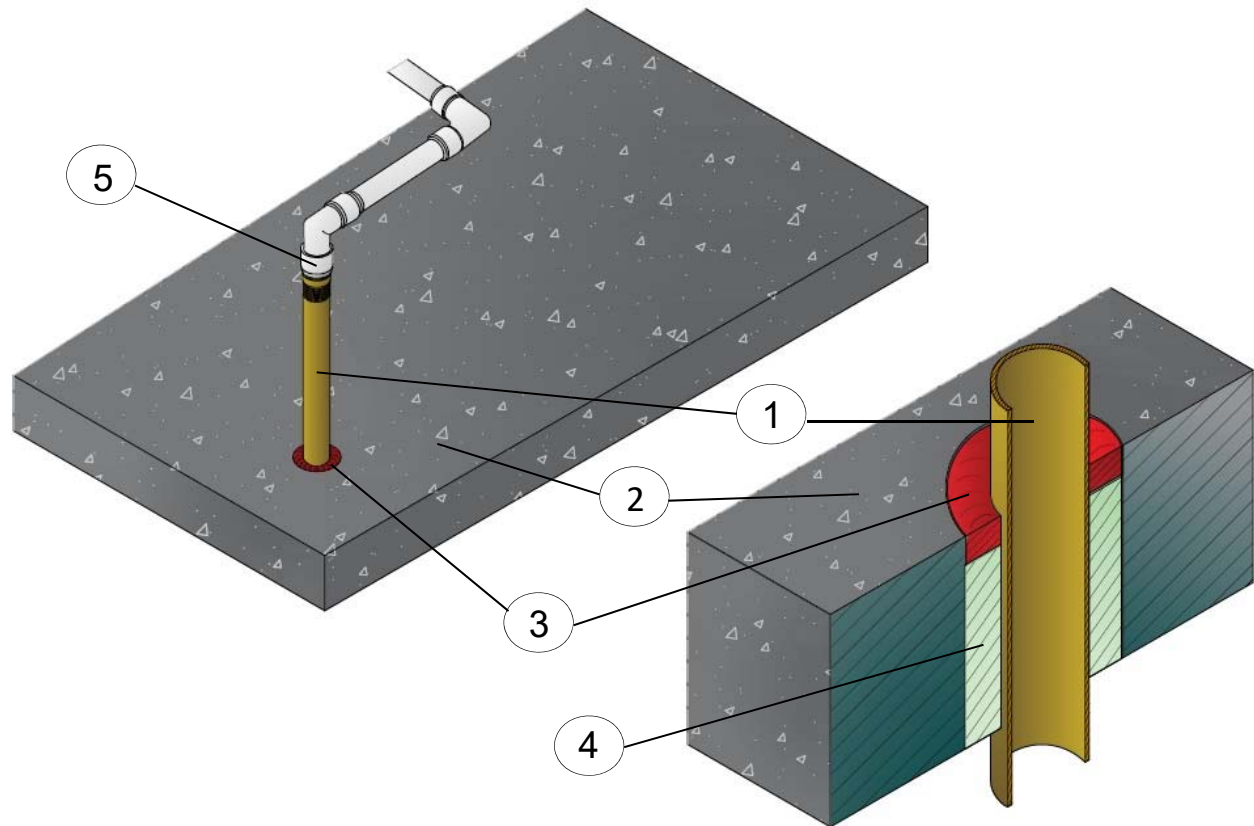


**QAI Listing P321-1I Uponor Copper to PEX Firestop Assembly - ASTM E814, CAN/ULC S115
2 Hour FH-Rating**



No.	COMPONENT	DESCRIPTION	
1	Penetrating Item	Type:	Cast iron, steel or copper pipe.
		Size:	16 mm OD (Nominal 1/2 in.) to 54 mm OD (Nominal 2 in.)
		Orientation:	Any position in the opening.
2	Floor/Ceiling Assembly	Type:	Lightweight or regular concrete
		Thickness:	Minimum 114 mm (4-1/2 in.)
		Opening:	Maximum 38 mm (1-1/2 in.) larger than the nominal pipe size and maximum annular space of 35 mm (Nominal 1-1/2 in.)
3	Firestop Component 1	Manufacturer:	Hilti
		Product:	FS-One Max Intumescent Firestop Sealant.
		Depth:	Install to a depth of 13 mm (1/2 in.) so that the sealant is flush with the top of the concrete. Place a 6 mm (1/4 in.) bead at locations where the pipe is in contact with the concrete.
4	Firestop Component 2	Type:	Mineral wool insulation in compliance with ASTM 612 type II, III or IVA. ASTM C612 Type II and III mineral wool insulation must also be non-combustible as defined by ASTM E136 and CAN/ULC S114.
		Density:	72 kg/m ³ (4.5 lbs/ft ³)
		Compression:	50%
		Installation:	Installed to a minimum depth of 102 mm (4 in.) with a minimum 13 mm (1/2 in.) recess at the top.
5	Transition	Manufacturer:	Uponor Inc.
		Product:	Copper to PEX Expansion Fitting
		Installation:	Installed a minimum 1.22 m (48 in.) from the top of the concrete slab.