

Firestop Schedule of Through Penetration Systems. Basis of Design: Hilti, Inc.

TYPE OF PENETRANT	F-RATING (HR)	CONCRETE FLOORS	CONCRETE OR BLOCK WALLS	GYPSUM WALLS	WOOD FLOORS	Hilti Products	BOD vs. Contractor cUL System Submitted
		BASIS OF DESIGN cUL SYSTEM		BASIS OF DESIGN cUL SYSTEM			
CIRCULAR BLANK OPENINGS	1	F-A-0006, C-AJ-0055, C-AJ-0090	C-AJ-0055, C-AJ-0090	--	--	CP 680, CP 618, FS One Max, Firestop Block (CFS-BL)	
	2	F-A-0006, C-AJ-0055, C-AJ-0090	C-AJ-0055, C-AJ-0090	--	--		
	3	F-A-0006, C-AJ-0055, C-AJ-0086, F-A-0014	C-AJ-0055, C-AJ-0086	--	--		
METAL PIPES OR CONDUIT	1	C-AJ-1226, F-A-1028, F-A-1017	C-AJ-1226, W-J-1067, W-J-1020	W-L-1054, W-L-1058, W-L-1164, W-L-1506	F-C-1009, F-C-1059, F-C-1168	CP 680, FS One Max, CP 606, CFS-S SIL GG, CFS-D, Mineral Wool	
	2	C-AJ-1226, F-A-1028, F-A-1017	C-AJ-1226, W-J-1067, W-J-1020, W-J-1248	W-L-1054, W-L-1058, W-L-1164, W-L-1506	F-C-1009, F-C-1059, F-C-1168		
	3	C-AJ-1226, F-A-1017	C-AJ-1226, W-J-1041, W-J-1068	--	--		
	4	C-BJ-1037, C-BJ-1034	C-BJ-1034, C-BJ-1037, W-J-1041, W-J-1042, W-J-1068	W-L-1110, W-L-1111, W-L-1165	--		
NON-METALLIC PIPE OR CONDUIT (I.E. PVC, CPVC, ABS, FRP, ENT)	1	F-A-2053, F-A-2025, C-AJ-2109, C-AJ-2098, C-AJ-2271, C-AJ-2167, C-BJ-2021, C-AJ-2342	C-AJ-2109, C-AJ-2098, C-AJ-2167, C-AJ-2371, C-AJ-2342	W-L-2078, W-L-2075, W-L-2128	F-C-2232, F-C-2030, F-C-2160, F-C-2389	CP 680, CP 643N, Mineral Wool, CP 644, FS One Max, CFS-S SIL SL, CFS-S SIL GG, CP 648	
	2	F-A 2053, F-A 2025, C-AJ-2109, C-AJ-2098, C-AJ-2271, C-AJ-2167, C-BJ-2021, C-AJ-2371, C-AJ-2342	C-AJ-2109, C-AJ-2098, C-AJ-2167, C-AJ-2371, C-AJ-2342	W-L-2078, W-L-2075, W-L-2128	F-C-2029, F-C-2030, F-C-2128, F-C-2160		
	3	F-A-2054, C-AJ-2109, C-AJ-2098, C-AJ-2371, C-AJ-2342	C-AJ-2109, C-AJ-2098, C-AJ-2371, C-AJ-2342	--	--		
	4	C-BJ-2016, C-AJ-2017	W-J-2057, W-J-2091	W-L-2184, W-L-2245	--		
SINGLE OR BUNDLED CABLES	1	F-A-3007, C-AJ-3095, C-AJ-3180, C-AJ-3283	W-J-3036, C-AJ-3095, C-AJ-3180, W-J-3060, W-J-3167	W-L-3065, W-L-3111, W-L-3112, W-L-3334, W-L-3414, W-L-3396	F-C-3012, F-C-3110, F-C-3044	CP 680, CP 653, FS One Max, CP 618, CP 606, CFS-D, CFS-CC	
	2	F-A-3007, C-AJ-3095, C-AJ-3334, F-A-3060	W-J-3036, C-AJ-3095, C-AJ-3180, W-J-3060, W-J-3167, W-J-3189	W-L-3065, W-L-3111, W-L-3112, W-L-3334, W-L-3414, W-L-3396	F-C-3012, F-C-3110		
	3	F-A-3007, C-AJ 3095, C-AJ-3285	C-AJ-3095, C-AJ-3180, W-J-3167	--	--		
	4	N/A**	W-J-3050	W-L-3139, W-L-3334	--		
CABLE TRAY	1	C-AJ-4034, C-AJ-4035	W-J-4027, C-AJ-4034, C-AJ-4035	W-L-4011, W-L-4019, W-L-4081	--	Firestop Block (CFS-BL), FS One Max, Foam (CP 620), CP 618	
	2	C-AJ-4034, C-AJ-4035	W-J-4027, C-AJ-4034, C-AJ-4035	W-L-4011, W-L-4019, W-L-4081	--		
	3	C-AJ-4034, C-AJ-4035	C-AJ-4034, C-AJ-4035	W-L-3385, W-L-3277	--		
	4	N/A**	W-J-8007	W-L 8014	--		
INSULATED PIPES	1	F-A 5015, F-A 5017, C-AJ-5090, C-AJ-5091, C-AJ-5090, C-AJ-5048	C-AJ-5090, C-AJ-5091, C-AJ 5061, W-J-5042	W-L-5028, W-L-5029, W-L-5047	F-C-5004, F-C-5037, F-C-5036	CP 680, FS One Max, Mineral Wool	
	2	F-A 5015, F-A 5017, C-AJ-5090, C-AJ-5091, C-AJ-5090	C-AJ-5090, C-AJ-5091, C-AJ-5061, W-J-5042	W-L-5028, W-L-5029, W-L-5047	F-C-5004, F-C-5037		
	3	F-A 5016, C-AJ-5090, F-A-5018	C-AJ-5090, C-AJ-5061	--	--		
	4	C-BJ-5006	C-BJ-5006, W-J-5028	W-L-5073	--		
ELECTRICAL BUSWAY	1	C-AJ-6006, C-AJ-6017, F-A-6002, C-AJ-6036	C-AJ-6006, C-AJ-6017, C-AJ-6036	--	--	CP 637, FS One Max, CP 620, Firestop Block (CFS-BL), Mineral Wool, CFS-S Sil GG, CFS-S SIL SL	
	2	C-AJ-6006, C-AJ-6017, F-A 6042, C-AJ-6036	C-AJ-6006, C-AJ-6017, C-AJ-6036	--	--		
	3	C-AJ-6006, C-AJ-6017	C-AJ-6006, C-AJ-6017	--	--		
MECHANICAL DUCTWORK WITHOUT DAMPERS (NON-INSULATED)	1	C-AJ-7046, C-AJ-7051, C-AJ-7084	C-AJ-7046, C-AJ-7051, W-J-7021, W-J-7022	W-L-7017, W-L-7040, W-L-7042, W-L-7155	F-C-7013	CFS-S SIL GG, CP 606, FS One Max	
	2	C-AJ-7046, C-AJ-7051, C-AJ-7085	C-AJ-7046, C-AJ-7051, W-J-7021, W-J-7022	W-L-7040, W-L-7042, W-L-7155	--		
	3	C-AJ-7046, C-AJ-7051	C-AJ-7046, C-AJ-7051	--	--		
MECHANICAL DUCTWORK WITHOUT DAMPERS (INSULATED)	1	N/A**	W-J-7029, W-J-7124	W-L-7059, W-L-7153, W-L-7156, W-L-7151	N/A**	FS One Max, Mineral Wool	
	2	N/A**	W-J-7091, W-J-7112, W-J-7124	W-L-7059, W-L-7153, W-L-7156, W-L-7151	N/A**		
MIXED PENETRANTS	1	C-AJ-8099, C-AJ-8056, C-AJ-8143	C-AJ-8099, C-AJ-8056, W-J-8007, C-AJ-8143	W-L-1095, W-L-8013	F-C-8009, F-C-8014, F-C-8026	FS One Max, Firestop Block (CFS-BL), CP 620, CP 618	
	2	C-AJ-8099, C-AJ-8056, C-AJ-8143, C-AJ-8252	C-AJ 8099, C-AJ-8056, W-J-8007, C-AJ-8143, C-AJ-8252	W-L-1095, W-L-8013	--		
	3	C-AJ-8099, C-AJ-8056	C-AJ-8041, C-AJ-8056, W-J-8007, C-AJ-8099	--	--		
	4	C-AJ-8095	C-AJ-8095, W-J-8007	W-L-8014	--		

**CONTACT HILTI FOR CURRENT cUL-CLASSIFIED SYSTEM OR ENGINEER JUDGMENT DRAWING: 800-363-4458

NOTES:

1. Jobsite conditions of each through-penetration firestop system must meet ALL details of the cUL-Classified System selected.
2. If jobsite conditions do not match any cUL-classified systems in the schedules above, contact Hilti for alternative systems or Engineer Judgment Drawings - 800-363-4458
3. Coordinate work with other trades to assure that penetration opening sizes are appropriate for penetrant locations, and vice versa.