UL Evaluation Report

UL ER14579-01

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UL Category Code: ULFE

CSI MasterFormat®

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION

Sub-level 2: 07 80 00 - Fire and Smoke Protection

Sub-level 3: 07 84 00 - Firestopping

Sub-level 4: 07 84 13 - Penetration Firestopping

COMPANY:

Specified Technologies, Inc. 210 Evans Way Branchburg, NJ 08876

1. SUBJECT:

EZ-PATH® SERIES 22, SERIES 33, SERIES 44+ FIRE-RATED PATHWAYS

2. SCOPE OF EVALUATION

- 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2015, 2012, and 2009 International Fire Code® (IFC)
- NFPA 101 Life Safety Code[®], 2015, 2012, 2009, and 2000 Editions
- ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated June 2014

The products were evaluated for the following properties:

- Through-Penetration Firestop Systems (ANSI/UL 1479/ASTM E814)
- Penetrations in smoke barriers
- Penetrations in smoke partitions

3. REFERENCED DOCUMENTS

- ANSI/UL 1479 (ASTM E814), 4th Edition, Standard for Fire Tests of Penetration Firestops
- 2015, 2012, and 2009 International Building Code® (IBC)
- 2015, 2012, and 2009 International Fire Code® (IFC)
- NFPA 101 Life Safety Code[®], 2015, 2012, 2009, 2000 Editions
- ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated June 2014

4. USES

The EZ Path[®] Series 22, 33, and 44+ Fire-Rated Pathways are intended for use as cable management/firestop devices within fire-resistance-rated wall assemblies, floor assemblies or floor/ceiling assemblies when installed in accordance with this report and the applicable code.

5. PRODUCT DESCRIPTION

5.1 General:

The EZ-Path[®] Series 22, 33, and 44+ Fire-Rated Pathways are cable protection devices designed for both new and existing cable installations. Each EZ-Path[®] Fire-Rated Pathway consists of a steel raceway with an intumescent inner lining. Each device permits the visual cable loading to range from 0 to 100 percent. The EZ-Path[®] Fire-Rated Pathways have been evaluated in accordance with UL 1479 as required by 2015 IBC Sections 714.3.1.2 and 714.4.1.2, 2012 IBC Sections 714.3.1.2 and 714.4.1.1.2, and 2009 IBC Sections 713.3.1.2 and 713.4.1.1.2.

The EZ-Path[®] Series 22 is designed for low cable volume applications. It is intended for new or existing cable installations through walls only.

The EZ-Path[®] Series 33 is designed for moderate cable volume applications. It is intended for new or existing cable installations through both walls and floors.

The EZ-Path[®] Series 44+ is designed for high cable volume applications. It is intended for new or existing cable installations through both walls and floors.

5.2 Penetrations in Smoke Barriers

The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways have been evaluated for air leakage in accordance with ANSI/UL 1479. The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways may be used as a penetration in smoke barriers, as specified by the 2015 IBC Section 714.4.4, 2012 IBC Section 714.5, or 2009 IBC Section 713.5. The L Rating for each device is dependent on the application and types of cables used in each through-penetration firestop system as identified in Section 6.2 of this report. The IBC provides for an option of two criteria for L Ratings of penetrations in smoke barriers. The L Rating of the firestop device shall either be less than or equal to 5.0 cfm per square foot of penetration opening or the total cumulative leakage shall not exceed 50 cfm for each 100 ft² of wall or floor space. Devices such as EZ-Path® Series 22, 33, and 44+ Fire Rated Pathways have a fixed-loading area. Accordingly, the L Rating can be reported in terms of cfm per device. The L Rating for each model of EZ-Path® varies according to the fill ratio of the device.

The table below shows the approximate number of devices that can be installed into a 100 ft² floor or wall area based on the L Ratings reported for the through-penetration firestop systems identified in Section 6.2 of this report.

Table 1 – L Ratings

Model (Based on 100% fill)	L Rating for Cables, cfm, per device	Approximate Number Devices for 100 ft ² wall/floor area
Series 22	< 1	50*
Series 33	1.3	38*
Series 44+	2.3	21*

*Because the devices are intended to convey cables, the worst case scenario of 100% visual cable fill was selected to provide an indicator of the approximate number of devices. Consult the individual through-penetration firestop system to verify actual device count.

The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways may be used as part of a penetration firestop system in smoke barriers, as specified by the 2015 NFPA 101 Life Safety Code Section 8.5.6.2, 2012 NFPA 101 Life Safety Code Section 8.5.6.2, 2009 NFPA 101 Life Safety Code Section 8.5.6.2, or 2000 NFPA 101 Life Safety Code Section 8.3.6.1. The L Rating for each device is dependent on the application and types of cables used in each through-penetration firestop system as identified in Section 6.2 of this report. The NFPA 101 Life Safety Code requires that penetrations through smoke barrier assemblies shall be protected by either a device or material capable of restricting the transfer of smoke. Accordingly, it is our judgment that tests conducted in accordance with air leakage test procedures described in ANSI/UL 1479 provide evidence of a particular device or material to restrict or limit smoke transfer through smoke barriers. The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways have published L Ratings at both ambient and elevated temperatures confirming their ability to restrict or limit smoke transfer.

5.3 Penetrations in Smoke Partitions

The EZ-Path[®] Series 22, 33, and 44+ Fire-Rated Pathways may be used as penetrations in smoke partitions, when installed in accordance with the 2015 and 2012 IBC <u>Section 710.6</u>, 2009 IBC <u>Section 711.6</u>, 2015, 2012 or 2009 NFPA 101 Section 8.4.4.1, or 2000 NFPA 101 Section 8.2.4.4.1.

6. INSTALLATION

6.1 General:

The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways are installed through wall, floor or floor/ceiling assemblies. The Pathways are permitted to penetrate fire-resistance rated assemblies when installed in accordance with the manufacturer's installation instructions, Section 6.2 of this report, and the 2015 IBC Sections 714.3.1.1 and 714.4.1.1, 2012 IBC Sections 714.3.1.1 and 713.4.1.1.1.

The EZ-Path[®] Series 22, 33, and 44+ Fire-Rated Pathways do not require regular maintenance when properly installed as outlined above. Each device remains maintenance free following installation, aside from any necessary repairs due to damage or alteration to the device. In the event the device is damaged or altered, the manufacturer's guidance shall be followed to repair or replace the device.

6.2 Through-Penetration Firestop Systems

6.2.1 General:

Where the devices penetrate fire-resistive assemblies, the through-penetration must be installed according to one or more of the through-penetration firestop systems described in Sections 6.2.2 and 6.2.3 of this report.

6.2.2 Through-penetration Firestop Wall Assemblies

Where the EZ-Path[®] Series Fire-Rated Pathways penetrate a fire-resistance-rated concrete or concrete masonry wall assembly or gypsum wallboard/stud wall assembly, the devices must be installed as specified in one or more of the UL Through-penetration Firestop System Nos. shown in Table 2 and as shown in the UL Fire Resistance Certification information for File R14579 (XHJI).

Table 2 - Through-penetration Firestop Systems - Wall Assemblies

Designation	UL Through-penetration Firestop System Nos.
EZ-Path [®] Series 22 Fire-Rated Pathway	C-AJ-8181, W-J-3130, W-J-3131, W-J-3145, W-J-3172, W-J-8040, W-L-3255, W-L-3256, W-L-3271, W-L-3339, W-L-3377, W-L-8073
EZ-Path [®] Series 33 Fire-Rated Pathway	C-AJ-2471, C-AJ-3214, C-AJ-3231, C-AJ-8181, W-J-3098, W-J-3099, W-J-3124, W-J-3138, W-J-3145, W-J-3150, W-J-8040, W-K-3001, W-L-2390, W-L-3218, W-L-3219, W-L-3248, W-L-3265, W-L-3271, W-L-3286, W-L-3287, W-L-3377, W-L-8073.
EZ-Path [®] Series 44+ Fire-Rated Pathway	C-AJ-3260, C-AJ-3317, C-AJ-8181, C-DM-3005, W-J-3158, W-J-3180, W-J-3186, W-J-3195, W-L-3306, W-L-3356, W-L-3377, W-L-3380, W-L-3390, W-L-8073.

6.2.3 Through-penetration Firestop Floor Assemblies:

Where the EZ-Path[®] Series Fire-Rated Pathways penetrate a fire-resistance-rated concrete or hollow core precast concrete units floor assembly, the devices must be installed as specified in one or more of the UL Through-penetration Firestop System Nos. shown in Table 3 and as shown in the UL Fire Resistance Certification information for File R14579 (XHJI).

Table 3 – Through-penetration Firestop Systems – Floor Assemblies

Designation	UL Through-penetration Firestop System Nos.
EZ-Path [®] Series 33 Fire-Rated Pathway	C-AJ-2471, C-AJ-3214, C-AJ-3231, C-AJ-8181, F-A-2128, F-A-3015, F-A-3021, F-A-3025, F-A-3026, F-A-3027, F-A-3048, F-C-3103, F-E-3015
EZ-Path [®] Series 44+ Fire-Rated Pathway	C-AJ-3260, C-AJ-3317, C-AJ-8181, C-DM-3005, F-A-3037, F-A-3054, F-A-3056, F-A-3058, F-A-3059

7. CONDITIONS OF USE

7.1 General:

The EZ-Path[®] Fire-Rated Pathways described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 2 of this report, subject to the following conditions:

- 7.2 The products must be manufactured, identified, and installed in accordance with this report, the manufacturer's published installation instructions, and the applicable code. If there is a conflict between the manufacturer's installation instructions and this report, the report governs.
- **7.3** All assemblies shall be built in accordance with the applicable published UL designs, or as otherwise described within this report.
- 7.4 See UL's Online Certification Directory under UL File R14579 for Firestop Devices (XHJI) evaluated as a part of fire-resistance-rated through-penetration systems in accordance with ANSI/UL 1479.
- **7.5** EZ-Path[®] Fire-Rated Pathways are manufactured by Specified Technologies, Inc., in Somerville, NJ, under the UL LLC Listing/Classification and Follow-Up Service Program, which includes inspections in accordance with the quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.

8. SUPPORTING EVIDENCE

- **8.1** Manufacturer's product literature and installation instructions.
- **8.2** Data in accordance with ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated June 2014.
- **8.3** UL Classification reports in accordance with ANSI/UL 1479 (ASTM E814). See UL Product Certification Category, Firestop Devices (XHJI).

9. IDENTIFICATION

The EZ-Path® Series 22, 33, and 44+ Fire-Rated Pathways described in this evaluation report are identified by a marking bearing the report holder's name [Specified Technologies, Inc.], the plant identification, the UL Listing/Classification Mark, and the evaluation report number UL ER14579-01. The validity of the evaluation report is contingent upon this identification appearing on the product or UL Listing/Classification Mark certificate.

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