UL Proficient, or are You?

Rich Walke
UL Codes and Advisory Services
Agenda

• Update on Standards Activities
  • S100A Technical Committee
  • UL 1479 Standards Technical Panel (STP)
• New UL Product Categories for the Firestop Industry
• UL Resources for the Firestop Contractor
Update on Standards Activities

UL 1479
STANDARD FOR SAFETY
Fire Tests of Penetration Firestops
S100A Technical Committee

- Continue alignment of ULC S115 with:
  - UL 1479 (ASTM E814 penetration firestops)
  - UL 2079 (ASTM E1966 fire resistive joints)
- Desire for perimeter fire barrier standard (e.g. ASTM E2307)
- Consideration for firestop shrinkage
- Consideration for pipe type transitions
- Discussion to test for movement
Standards Technical Panels (STP)

- A group responsible for the development and revision of a standard or group of standards
- Balance of interests
- An STP serves as the consensus body for UL Standards
- Open to the public
- FCIA is well represented on UL 1479 STP
UL 1479 Standards Technical Panel (STP) Activity

- UL 1479 – Penetration firestop systems
- UL 2079 – Fire resistive joint systems
- UL 1489 – Fire resistive pipe protection systems
Membrane Penetrations

• Desired State:
  • Provide UL 1479 small scale test method for horizontal assemblies
  • Harmonize with ASTM E814 & ULC S115
Membrane Penetrations – What we don’t want!
Membrane Penetrations – What we don’t want!
Patching and Repair of Firestops and Joint Systems

- Firestops get damaged both accidentally and intentionally (e.g. inspection)
- May not be practical to start over every time
- Must be proven by test
- Task group assembled
- Goal is to provide guidance for patching and repairing
Evaluating Aged Joints for Movement

• Does aged material still afford the same elasticity, movement and adhesion as younger material?
• Will it still cycle?
• Will it still perform as intended?
• Should a long term test be included in the test standard?
• Great example of using STP
• Task group assembled
UL 1479 – W Rating Increase

Water leakage test chamber sealed to test assembly away from test sample

Test chamber filled with water with permanent dye to attain required pressure head (mln 36 in. water or 1.3 psig)

White indicating medium beneath test sample
UL 1479 – W Rating Increase

• Currently only have Class 1
• Can we expand to 1m (39.4 in.)?
• Satisfy global requests
• Initial study suggests support expansion
• STP will discuss and propose expansion to UL 1479
Sleeved Penetrations
Sleeved Systems Typical Tested and System Published as Tested

- Sleeve
- Penetrant
- Firestop System

Concrete Slab
Other Sleeved Penetrant Scenarios
Sleeved Penetrations – Summary

- Certain circumstances can be EJ’d
- Not a “one size fits all” solution
- Task group assembled
- Create guide to develop exclusions to an EJ’d solution
ANSI/UL 1489

- Satisfy building code requirements for specific fuel pipe assemblies
- Circulated to STP in Jan 2016
- New UL certification program based on this test method
- UL CCN’s HNKM and HNKJ
- This is published as an ANSI/UL standard
# Relevant Firestop Standards

<table>
<thead>
<tr>
<th>Standard Type</th>
<th>Standard Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration Firestop Systems</td>
<td>ULC S115, UL 1479, ASTM E814</td>
</tr>
<tr>
<td>Firestop Joints</td>
<td>ULC S115, UL 2079, ASTM E1966, ASTM E2837</td>
</tr>
<tr>
<td>Perimeter Joint Systems</td>
<td>ASTM E2307</td>
</tr>
<tr>
<td>Aging</td>
<td>ASTM E2923</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>ASTM C1241</td>
</tr>
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</table>
## Firestop Standards Requirement Matrix

<table>
<thead>
<tr>
<th>Rating</th>
<th>Penetrations</th>
<th></th>
<th></th>
<th>Joints</th>
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<th></th>
<th>Perimeter</th>
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<tr>
<td></td>
<td>UL 1479</td>
<td>ASTM E814</td>
<td>ULC S115</td>
<td>UL 2079</td>
<td>ASTM E1966</td>
<td>ULC S115</td>
<td>ASTM E2307</td>
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<td></td>
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<td></td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<td>X</td>
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<td>Cyclic Movement</td>
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<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Questions / Comments
New UL Product Categories for the Firestop Industry
# New UL Categories (CCN’s)

<table>
<thead>
<tr>
<th>CCN</th>
<th>Title</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNKJ</td>
<td>Fire-resistant Pipe-protection <strong>Systems</strong></td>
<td>UL 1489</td>
</tr>
<tr>
<td>HNKJ</td>
<td>Fire-resistant Pipe-protection <strong>Materials</strong></td>
<td>UL 1489</td>
</tr>
<tr>
<td>BRDX</td>
<td>Brazilian Certification Services - Miscellaneous Firestop Materials, Joint Materials and Accessories</td>
<td>UL 1479 UL 2079</td>
</tr>
<tr>
<td>XHJN</td>
<td>Firestop Systems, Marine</td>
<td>IMO FTP Code</td>
</tr>
<tr>
<td>XHDI</td>
<td>Accessories for Use in Perimeter-fire-containment Systems</td>
<td>ASTM E2307</td>
</tr>
</tbody>
</table>
Fire-resistant Pipe-protection Systems
HNKJ

- **Fire-resistant Pipe-protection Systems**
  - Covers protection of piping systems intended to carry combustible liquids
  - Responds to building and mechanical code requirements
  - Testing conducted in accordance with ANSI/UL 1489
Fire-resistant Pipe-protection Materials
HNKM

• Fire-resistant Pipe-protection Materials
  • Covers proprietary materials used in fire-resistant pipe-protection systems
  • Listings will reference back to Fire-resistant Pipe-protection Systems (HNKJ)
Brazilian Certification Services
BRDX

• Brazilian Certification Services – Miscellaneous Firestop Materials, Joint Materials and Accessories
  • Covers proprietary materials certified to Brazilian requirements
  • Brazilian requirements are ANSI/UL 1479 and ANSI/UL 2079 for firestop systems and joint systems, respectively
  • Listings will reference back to US Firestop Systems (XHEZ) and Joint Systems (XHBN)
Firestop Systems, Marine XHJN

• Firestop Systems, Marine
  • Covers firestop systems tested to IMO FTP Code
  • Unique numbering sequence has been established for systems
  • Proprietary materials used in these systems are covered under traditional US firestop product categories such as Fill, Void or Cavity Materials (XHHW) and Firestop Devices (XHJI)
• **Accessories for Use in Perimeter-fire-containment Systems**
  
  • Covers proprietary accessories associated with the construction of Perimeter-fire-containment Systems
  
  • Listings will reference back to Perimeter-fire-containment Systems (XHDG)
Questions / Comments
UL Resources for the Firestop Contractor
Top Level UL Resources

• Hard copy Fire Resistance Directory may be ordered
• Online Certification Resources
  • Online Certification Directory
  • Product Spec™
  • Code Link
• Other UL Resources
UL’s Online Certification Resources

- Online Certifications Directory
- Product Spec
- Code Link
Online Certifications Directory

- No charge to access
- Updated daily
- Searchable
- Essentially replaced UL product directories
- [www.ul.com/database](http://www.ul.com/database)
Online Certifications Directory

Searching for Information on Firestop Systems
Keyword Search Tips

• Match Word – Enter word
• Match Phrase – Enter exact phrase
• Match All Words – Enter AND between words
• Match Any Words – Enter OR between words
• Exclude a Word – Enter NOT before word
• Match Word and Phrase – Enter AND between word and phrase in single quotes
• Match Partial Word or Phrase – Enter WILDCARD (*) to replace characters or words not known
ONLINE CERTIFICATIONS DIRECTORY

Fire-resistance-rated Systems and Products

These designs, systems, assemblies, and products all include, or are related to, hourly fire-resistance ratings.

SEARCH FOR A DESIGN

Search for a Design No.

SEARCH
CLEAR

SEARCH HINTS: To search for a particular design (or assembly or system), enter the design number above. To search for designs within a series enter the alpha character(s) followed by the first numeric character and an "*" (e.g., searching for LS* yields result for all LS00 series designs). If your initial search yields an excessive number of matches, select "Refine Your Search" and tighten the search parameters using the desired hourly rating, company name of components used in the design, and other key words.

FIRE-RESISTANCE-RATED SYSTEMS AND PRODUCTS

- Fire-resistance Ratings
  (floor-ceilings, roof-ceilings, beams, walls, partitions, columns)
- Through-penetration Firestop Systems
- Joint Systems
- Perimeter Fire-containment Systems
- Fire Door and Fire Window Assemblies
- Dampers
- Grease Duct Assemblies
- Structural Steel Used in Petrochemical Facilities
- Electrical Circuit Protective Systems
- Thermal Barrier Systems
- Ventilation Duct Assemblies

RELATED INFORMATION

- Fire-resistant Record Protection Equipment
- Vault Doors

FOR FURTHER ASSISTANCE

- Correlate International Building Code requirements with UL certifications
- Architectural Services
- Customer Services
- Regulatory Services
- Obtain UL Standards
- Training course on fire resistance
- General information on fire resistance ratings (BFHR)
- Recent additions or changes

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Fire-resistance-rated Systems and Products

These designs, systems, assemblies, and products all include, or are related to, hourly fire-resistance ratings.

SEARCH FOR A DESIGN

Search for a Design No.

Search

CLEAR

SEARCH HINTS: To search for a particular design (or assembly or system), enter the design number above. To search for designs within a series enter the alpha character(s) followed by the first numeric character and an "*" (e.g., searching for LS* yields result for all LS00 series designs). If your initial search yields an excessive number of matches, select "Refine Your Search" and tighten the search parameters using the desired hourly rating, company name of components used in the design, and other key words.

FIRE-RESISTANCE-RATED SYSTEMS AND PRODUCTS

* Fire-resistance Ratings
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* Through-penetration Firestop Systems
* Joint Systems
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* Fire Door and Fire Window Assemblies
* Dampers
* Grease Duct Assemblies
* Structural Steel Used in Petrochemical Facilities
* Electrical Circuit Protective Systems
* Thermal Barrier Systems
* Ventilation Duct Assemblies

RELATED INFORMATION

* Fire-resistant
  Record Protection Equipment
  and
  Vault Doors

FOR FURTHER ASSISTANCE

* Correlate International Building Code requirements with UL certifications
* Architectural Services
* Customer Services
* Regulatory Services
* Obtain UL Standards
* Training course on fire resistance
  General information on fire resistance ratings (BYRH)
  Recent additions or changes

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**Online Certifications Directory**

**Through-penetration Firestop Systems**

This category covers firestop systems, which are specific constructions consisting of a wall or floor assembly, a penetrating item passing through an opening in the wall or floor assembly, and the materials designed to prevent the spread of fire through the openings.

For US applications, systems are investigated in accordance with ANSI/UL 1479, "Fire Tests of Through-Penetration Firestops." For Canadian applications, systems investigated in accordance with CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."

**Search for Designs**

**Related Information**

- Guide Information - For general information on Through-penetration Firestop Systems (XHEZ2)
- Guide Information - For general information on Through-penetration Firestop Systems Certified for Canada using CAN/ULC-S115 (XHEZ2)
- Scope of ANSI/UL 1479
- UL Qualified Contractor Program

**For Further Assistance**

- Correlate International Building Code requirements with UL certifications
- Architectural Services
- Customer Services
- Regulatory Services
- Obtain UL Standards
- Training course on fire resistance
- General information on fire resistance ratings (RXSM)
- Recent additions or changes
- Terms of Use

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Through-penetration Firestop Systems

This category covers firestop systems, which are specific constructions consisting of a wall or floor assembly, a penetrating item passing through an opening in the wall or floor assembly, and the materials designed to prevent the spread of fire through the openings.

For US applications, systems are investigated in accordance with ANSI/UL 1479, “Fire Tests of Through-Penetration Firestops.” For Canadian applications, systems investigated in accordance with CAN/ULC-S115, “Standard Method of Fire Tests of Firestop Systems.”

SEARCH FOR DESIGNS

Search for System No.

SEARCH HINTS: To search for a particular system, enter the system number above. To search for a series of systems in this category, enter the alphabetical prefix or prefixes followed by an “x”, such as C-x, C-201-x, or C-A3-3-x. Refer to the numbering system to identify suitable system numbers. If your initial search yields an excessive number of matches, select “Refine Your Search” and tighten the search parameters using the desired hourly rating, company name of components used in the system, and other key words.

RELATED INFORMATION

- Guide Information - For general information on Through-penetration Firestop Systems (XHEZ)
- Guide Information - For general information on Through-penetration Firestop Systems Certified for Canada using CAN/ULC-S115 (XHEZ)
- Scope of ANSI/UL 1479
- UL Qualified Contractor Program

FOR FURTHER ASSISTANCE

- Correlate International Building Code requirements with UL certifications
- Architectural Services
- Customer Services
- Regulatory Services
- Obtain UL Standards
- Training course on fire resistance
- General information on fire resistance ratings (RX54)
- Recent additions or changes

Terms of Use

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Through-Penetration Firestop Systems (XHEZ)

A firestop system is a specific construction consisting of a wall or floor assembly, a penetrating item passing through an opening in the wall or floor assembly, and the materials designed to prevent the spread of fire through the openings.

Numbering System

The systems are identified in this category by an alpha-alphanumeric identification system. The alpha components identify the type of assembly being penetrated and the numeric component identifies the type of penetrating item.

The first alpha component is either an F, W or C. The F signifies a floor is being penetrated, the W signifies a wall is being penetrated, and C signifies either a floor or a wall is being penetrated.

The second alpha component may be any letter. The significance of the letter used is:

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Concrete floors with a minimum thickness less than or equal to 5 inches</td>
</tr>
<tr>
<td>B</td>
<td>Concrete floors with a minimum thickness greater than 5 inches</td>
</tr>
<tr>
<td>C</td>
<td>Framed floors</td>
</tr>
<tr>
<td>D</td>
<td>Steel decks in marine vessels</td>
</tr>
<tr>
<td>E</td>
<td>Floor-ceiling assemblies consisting of concrete with membrane protection</td>
</tr>
<tr>
<td>F through I</td>
<td>Not used at present time</td>
</tr>
<tr>
<td>J</td>
<td>Concrete or masonry walls with a minimum thickness less than or equal to 8 inches</td>
</tr>
<tr>
<td>K</td>
<td>Concrete or masonry walls with a minimum thickness greater than 8 inches</td>
</tr>
<tr>
<td>L</td>
<td>Framed walls</td>
</tr>
<tr>
<td>M</td>
<td>Bulkheads in marine vessels</td>
</tr>
<tr>
<td>N</td>
<td>Composite panel walls</td>
</tr>
<tr>
<td>O through Z</td>
<td>Not used at present time</td>
</tr>
</tbody>
</table>
The numeric component uses sequential numbers to identify the penetrating item. The significance of the number used is:

<table>
<thead>
<tr>
<th>No. Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-0999</td>
<td>No penetrating items</td>
</tr>
<tr>
<td>1000-1999</td>
<td>Metallic pipe, conduit or tubing</td>
</tr>
<tr>
<td>2000-2999</td>
<td>Nonmetallic pipe, conduit or tubing</td>
</tr>
<tr>
<td>3000-3999</td>
<td>Electrical cables</td>
</tr>
<tr>
<td>4000-4999</td>
<td>Cable trays with electrical cables</td>
</tr>
<tr>
<td>5000-5999</td>
<td>Insulated pipes</td>
</tr>
<tr>
<td>6000-6999</td>
<td>Miscellaneous electrical penetrants such as busducts</td>
</tr>
<tr>
<td>7000-7999</td>
<td>Miscellaneous mechanical penetrants such as air ducts</td>
</tr>
<tr>
<td>8000-8999</td>
<td>Groupings of penetrations including any combination of items listed above</td>
</tr>
<tr>
<td>9000-9999</td>
<td>Not used at present time</td>
</tr>
</tbody>
</table>

Examples of through-penetration firestop systems:

C-AJ-0050, F-A-2029, W-J-1009

View the UL Guide Information for Through-Penetration Firestop Systems (XHEZ).

View the UL Guide Information for Through-Penetration Firestop Systems Certified for Canada (XHEZ/7).

How to use these table to find UL Through-Penetration Firestop System No.:

If you know the exact System Number you require, enter this number (i.e. c-aj-1268, w-l-1121, etc.) in the available Through-Penetration Firestop field and click "Search".
Through-penetration Firestop Systems

This category covers firestop systems, which are specific constructions consisting of a wall or floor assembly, a penetrating item passing through an opening in the wall or floor assembly, and the materials designed to prevent the spread of fire through the openings.

For US applications, systems are investigated in accordance with ANSI/UL 1479, "Fire Tests of Through-Penetration Firestops." For Canadian applications, systems investigated in accordance with CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."

SEARCH FOR DESIGNS

Search for System No.

[Search]

Numbering System for Through-penetration Firestop Systems

SEARCH HINTS: To search for a particular system, enter the system number above. To search for a series of systems in this category, enter the alphabetical prefix or prefixes followed by an *, such as C*, C-AJ*, or C-AJ-3*. Refer to the numbering system to identify suitable system numbers. If your initial search yields an excessive number of matches, select "Refine Your Search" and tighten the search parameters using the desired hourly rating, company name of components used in the system, and other key words.

RELATED INFORMATION

- Guide Information - For general information on Through-penetration Firestop Systems (XHEZ)
- Guide Information - For general information on Through-penetration Firestop Systems Certified for Canada using CAN/ULC-S115 (XHEZ2)
- Scope of ANSI/UL 1479
- UL Qualified Contractor Program

FOR FURTHER ASSISTANCE

- Correlate International Building Code requirements with UL certifications
- Architectural Services
- Customer Services
- Regulatory Services
- Obtain UL Standards
Questions / Comments
UL Product Spec™

• Supplements Online Certification Directory
• Needs no password
• It's free – no charge for use
• www.ul.com/productspec
• Works on all web connected devices regardless of platform or operating system
UL Product Spec™ Cont.

• Responsive Website – “Right sizes” screen size on smartphone, tablet or PC
• Includes electrical construction materials, and fire and building related materials and systems
• For smartphones and tablets, in your browser, save icon to the home screen and it acts just like an app
  • Apple iOS: then add to home screen
  • Android: Save to Favorite List, then tap icon and save to home screen
Searching for Information on Firestop Systems
# UL Product Spec™

## UL PRODUCT SPEC™

Quickly find, specify, or verify UL Certified products for your projects.

### 1. HOW DO YOU WANT TO SEARCH?

- Installation Code
- Product Type
- Products, Systems or Assemblies
- UL Product Category Code
- Master Format Number

### 2. RESULTS
# UL Product Spec™

**1. HOW DO YOU WANT TO SEARCH?**

- Products, Systems or Assemblies
  - Electrical
  - Building or Fire Systems

**2. RESULTS**
## 1. HOW DO YOU WANT TO SEARCH?

<table>
<thead>
<tr>
<th>Building or Fire Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Protection Systems</td>
</tr>
<tr>
<td>Commercial Cooking</td>
</tr>
<tr>
<td>Elevators</td>
</tr>
<tr>
<td>Fire Rated Walls, Floors, Beams and Columns</td>
</tr>
<tr>
<td>Firestop Systems</td>
</tr>
<tr>
<td>Passive Systems</td>
</tr>
<tr>
<td>Roofing</td>
</tr>
<tr>
<td>Windstorm Rated Products</td>
</tr>
<tr>
<td>Egress Equipment</td>
</tr>
<tr>
<td>Green Buildings</td>
</tr>
</tbody>
</table>
UL PRODUCT SPEC™

Quickly find, specify, or verify UL Certified products for your projects.

1. HOW DO YOU WANT TO SEARCH?

- Firestop Systems
  - Search by System Number
  - Search with Specific Parameters

2. RESULTS

Back
UL Product Spec™

• Sample Search - Accessing a system if system number is known
  • System No. F-C-1089
# UL Product Spec™

1. **HOW DO YOU WANT TO SEARCH?**

   **Firestop Systems**
   - Search by System Number
   - Search with Specific Parameters

2. **RESULTS**
UL PRODUCT SPEC™

1. HOW DO YOU WANT TO SEARCH?

Search by System Number

<table>
<thead>
<tr>
<th>F-C-1089</th>
<th>Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: &quot;W-L-2162&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Back
UL Product Spec™
UL Product Spec™

**1. HOW DO YOU WANT TO SEARCH?**

**THROUGH- PENETRATION FIRESTOP SYSTEM**

Assembly Usage Disclaimer

XHEZ - Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. F.C.-1089
November 05, 2007

F Rating — 1 Hr
T Rating — 1/2 Hr

![Diagram of Through-Penetration Firestop System](image-url)
UL Product Spec™

• Sample Search - Searching for a system based on specific parameters
  • 4-1/2 in. concrete slab floor assembly
  • 2 hour rating
  • ABS plastic pipe
  • Firstopping material supplied by the Specified Technologies Inc.
# UL Product Spec™

Quickly find, specify, or verify UL Certified products for your projects.

## 1. HOW DO YOU WANT TO SEARCH?

**Firestop Systems**

- Search by System Number
- Search with Specific Parameters

**Back**

## 2. RESULTS
# UL Product Spec™

## UL PRODUCT SPEC™

Quickly find, specify, or verify UL Certified products for your projects.

## 1. HOW DO YOU WANT TO SEARCH?

Search with Specific Parameters

Select from the following menus, then click Search.

<table>
<thead>
<tr>
<th>Assembly type:</th>
<th>Penetrating item:</th>
<th>Required rating:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete floors ≤ 5 in. thick</td>
<td>Nonmetallic pipe, conduit or tubing</td>
<td>F Rating ≥ 2 hr and &lt; 3 hr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer (optional):</th>
<th>Keyword (optional):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specified Technologies</td>
<td>ABS</td>
</tr>
</tbody>
</table>

[Search]

[Back]
# UL Product Spec™

**1. HOW DO YOU WANT TO SEARCH?**

- **Search Assembly type**: Concrete floors ≤ 5 in. thick; Penetrating item: Nonmetallic pipe, conduit or tubing; Rating: F Rating
- **Manufacturer Specified Technologies**:Keyword: ABS

**Results viewing 1-21 of 21**

<table>
<thead>
<tr>
<th>DESIGN</th>
<th>UL PRODUCT CATEGORY &amp; CODE</th>
</tr>
</thead>
</table>

![Diagram](image)
THROUGH-PENETRATION FIRESTOP SYSTEM

Assembly Usage Disclaimer

XHEZ - Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. C-AJ-2063
December 08, 2005

F Ratings — 2 and 3 Hr (See Item 1)
T Ratings — 2 and 3 Hr (See Item 1)
L Rating At Ambient — 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft

Section A-A
Questions / Comments
• Correlates model code sections to UL product categories
• Covers many model codes and editions (IBC, IFC, NEC, etc.)
• Flexible search capabilities
• Powerful tool to locate appropriate Listings
• www.ul.com/codelink
Code Link

• Sample Search – Searching for a firestop system covering the penetration of a wall assembly which complies with the requirements of Section 714.3.1.2 of the 2015 International Building Code
Code Link

<table>
<thead>
<tr>
<th>Code Link</th>
<th>2014</th>
<th>2011</th>
</tr>
</thead>
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# Code Link

## UL CODE LINK

Quickly find the correlations between building codes and UL Certified products.

### 1. HOW DO YOU WANT TO SEARCH?

<table>
<thead>
<tr>
<th>Code Section Number:</th>
<th>UL Product Category Code:</th>
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Enter one of the following search parameters:
## UL Code Link

Quickly find the correlations between building codes and UL Certified products.

### 1. How do you want to search?

<table>
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<tr>
<th>INSTALLATION CODE</th>
<th>UL PRODUCT CATEGORY &amp; CODE</th>
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<tr>
<td>IBC 2015: 714.3.1.2</td>
<td>Through-penetration Firestop Systems: XHEZ</td>
</tr>
<tr>
<td>IBC 2015: 714.3.1.2</td>
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<td>Fill, Void or Cavity Materials: XHHW</td>
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<td>Pipe-covering Materials: XHLU</td>
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<td>Through-penetrating Products: XHLY</td>
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</tbody>
</table>

Results 1-7 of 7
UL CODE LINK

1. HOW DO YOU WANT TO SEARCH?

UL PRODUCT CATEGORY

Through-penetration Firestop Systems, XHEZ
Guide Information for Fire-resistance Ratings

GENERAL

This category covers firestop systems, which are specific constructions consisting of a wall or floor assembly, a penetrating item passing through an opening in the wall or floor assembly, and the materials designed to prevent the spread of fire through the openings. The specifications for materials in a firestop system and the assembly of the materials are details that directly relate to the established ratings. Information concerning these details is described in the individual systems. The hourly ratings apply only to the complete systems. Individual components are designated for use in a specific system to achieve specified ratings. The individual components are not assigned ratings and are not intended to be interchanged between systems. Additionally, the substitution or elimination of components required in a system should not be made unless specifically permitted in the individual system or in these general guidelines.

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Firestop installations (video)

UL STANDARDS

UL 1478 Scope

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Firestop Installations (video)
Code Link

ONLINE CERTIFICATIONS DIRECTORY

XHEZ.GuideInfo
Through-penetration Firestop Systems

View Listings

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The firestop systems covered under this category have been investigated with a positive furnace pressure differential of at least 0.01 in. of water maintained at a distance of 12 in. below horizontal test assemblies and 0.78 in. below the fill materials surrounding the penetrating items passing through vertical test assemblies. The certifications of firestop systems contemplate installation in heated and air conditioned environments unless stated otherwise in the description of the system.

ANSI/UL 1479, "Fire Tests of Penetration Firestops," defines the criteria for hourly F, T, L and W ratings for firestop systems. The F-rating criteria prohibits flame passage through the system and requires acceptable hose-stream test performance. The T-rating criteria prohibits flame passage through the system and requires the maximum temperature rise on the unexposed surface of the wall or floor assembly, on the penetrating item and on the fill material not to exceed 325°F (181°C) above ambient, and requires acceptable hose-stream test performance.
## Through-penetration Firestop Systems, XHEZ

**Guide Information for Fire-resistance Ratings**

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- Firestop installations (video)

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- Firestop Installations (video)
UL Product Spec™

1. HOW DO YOU WANT TO SEARCH?

Firestop Systems
- Search by System Number
- Search with Specific Parameters

Back
### UL CODE LINK

Quickly find the correlations between building codes and UL Certified products.

#### 1. HOW DO YOU WANT TO SEARCH?

**UL PRODUCT CATEGORY**

Through-penetration Firestop Systems, XHEZ

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Code Link
# Code Link

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- Firestop installations (video)

### UL STANDARDS

- UL 1476 Scope

### UL WEB LINKS

- Firestop Installations (video)

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UL

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Print New Search
1 Scope
1.1 These requirements cover through penetration firestops of various materials and construction that are intended for use in openings in fire resistive wall, floor or floor-ceiling assemblies, and membrane type penetration firestops of various materials and construction that are intended for use in openings in fire resistive wall assemblies.
1.2 The method of testing penetration firestops as specified by these requirements consists of exposure of test samples to a fire of standard time and temperature and to an application of a hose stream. Ratings are then established on the basis of:
   a) The length of time the firestop resists fire before the first development of through openings or flaming on the unexposed surface;
   b) Acceptable limitation of thermal transmission; and
   c) Acceptable performance under the application of the hose stream.
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Other UL Resources

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• Technical support
• Complementary newsletters
• ULtimate email notifications
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ARCHITECT CHAT

Click on this button to chat online with UL subject matter experts. Chat is usually available Monday through Friday, 8:00 AM to 4:00 PM Central U.S. Time, except holidays.
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UL Product Spec is a powerful online search tool that helps you easily locate the UL certification information needed to achieve safe, sustainable code compliant installations. This search engine covers a wide range of construction materials, equipment and fire-resistance rated assemblies and systems. It includes the flexibility to search by product name, master format number, related installation code section, keywords and other terms.

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UL Evaluation Reports are intended to provide guidance to architects, designers, code authorities, contractors, installers, and other built environment influencers that a new or alternative material, product, design or method of construction complies with the intent of the building codes.

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Involved in a green building design and have questions about independent green claims validation, product certification, and related services? UL Environmental can help you compete successfully in the sustainable products marketplace. Obtain information that you can use immediately on these designs in the UL Green Construction Application Guide.

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FREQUENTLY ASKED QUESTIONS

Questions that architects often have about UL services and certifications.
Publications

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Thank You for Attending!!!

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