1. Product Name
SpecSeal® Firestop Products
EZ-Path™ Fire Rated Pathway
• Pensil® Silicones
Water Based Firestop and Joint Sealants and Sprays
• Firestop Putty and Putty Pads
• Firestop Mortar
• Firestop Pillows
• Firestop Collars and Intumescent Wrap Strips

2. Manufacturer
Specified Technologies, Inc. (STI)
200 Evans Way
Somerville, NJ 08876
(800) 992-1180
(908) 526-8000
Fax: (908) 526-9623
E-mail: specseal@stifirestop.com
www.stifirestop.com

3. Product Description
BASIC USE
These products are used solely or in combination to construct firestop systems effective in sealing through-penetrations, construction joints and high traffic openings against the spread of fire, smoke or hot gasses. A wide range of tested systems is available for standard constructions and penetrants with ratings up to 4 hours. These products and systems are suitable for sealing electrical, plumbing, mechanical, or data/communications penetrations, including:
Pipes, Conduits or Ducts
• Metallic
• Nonmetallic
• Insulated
Cables
• Telephone
• Power
• Data and Control
Cable Trays and Bus Ducts
• Steel
• Aluminum and Copper
Construction Joints

COMPOSITION & MATERIALS
STI Firestop Products are a unique combination of passive and intumescent (expands when heated) materials. Products utilizing this expansion mechanism exhibit unusually fast and aggressive, highly directionalized expansion.

Water Based Sealants
Series SSS, LCI, LC and ES Sealants are latex based, water resistant, flexible sealants. These products are available in a multi-viscosity grade suitable for caulking, troweling, pumping or bulk loading.
• Series SSS is a highly intumescent product well-suited for a wide range of combustible and noncombustible penetrants
• Series LCI is an intumescent product custom suited for a specific range of combustible and noncombustible penetrants
• Series LC is a nonintumescent sealant designed as an economical and effective solution for noncombustible penetrants
• Series ES is a highly elastomeric and non-halogenated, latex based material designed to provide passive smoke and fire protection and reduces sound transmission in construction joints

Firestop Putty
• Series SSP and Putty Pads
This nonhardening putty is based upon a highly water resistant liquid rubber matrix. Its unique combination of fillers yields a product that is at once soft and pliable yet extremely adhesive.

TABLE 1: FIRESTOP PRODUCT SIZES & CATALOG NUMBERS

<table>
<thead>
<tr>
<th>Category</th>
<th>Size/Description</th>
<th>Catalog Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Based Sealants &amp; Spray</td>
<td>10.1 Oz. (19 cu. in.) Cauk Tube</td>
<td>SSS100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29 Oz. (52 cu. in.) Cauk Tube</td>
<td>SSS129</td>
<td>LC150</td>
</tr>
<tr>
<td></td>
<td>20 Oz. (36 cu. in.) Sausage</td>
<td>SSS120</td>
<td>LCI300</td>
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<tr>
<td></td>
<td>2 Gal. (142 cu. in.) Poly Pail</td>
<td>SSS102</td>
<td>ES100</td>
</tr>
<tr>
<td></td>
<td>5 Gal. (1,155 cu. in.) Poly Pail</td>
<td>SSS105</td>
<td>AS105 AS205</td>
</tr>
<tr>
<td>Silicone Sealants</td>
<td>10.3 Oz. (18.3 cu. in.) Cauk Tube</td>
<td>PEN300</td>
<td>PEN305 PEN305SL</td>
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<tr>
<td></td>
<td>5 Gal. (1,155 cu. in.) Poly Pail</td>
<td>PEN305</td>
<td></td>
</tr>
<tr>
<td>Firestop Putty</td>
<td>2 Lb. (36 cu. in.) Bar</td>
<td>SSP100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.25&quot; X 7.25&quot; X 3/16&quot; Pad</td>
<td>SSP4S</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.00&quot; X 9.00&quot; X 3/16&quot; Pad</td>
<td>SSP9S</td>
<td></td>
</tr>
<tr>
<td>Firestop Mortar</td>
<td>22 Lb. (1,325 cu. in.*) Gallon</td>
<td>SSM106</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 Lb. (1,325 cu. in.*) Multi-Wall Bag</td>
<td>SSM22B</td>
<td></td>
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<tr>
<td>Firestop Pillows</td>
<td>1&quot; (2.54 cm) x 4&quot; (10.2cm) x 9&quot; (22.9cm)</td>
<td>SSB14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2&quot; (5.1cm) x 4&quot; (10.2cm) x 9&quot; (22.9cm)</td>
<td>SSB24</td>
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<td></td>
<td>2&quot; (5.1cm) x 6&quot; (15.24cm) x 9&quot; (22.9cm)</td>
<td>SSB26</td>
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<td></td>
<td>3&quot; (7.6cm) x 6&quot; (15.24cm) x 9&quot; (22.9cm)</td>
<td>SSB36</td>
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<tr>
<td>2 Part Silicone Foam</td>
<td>100 Lb. Kit (50# Part A, 50# Part B)</td>
<td>PEN200</td>
<td></td>
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<tr>
<td>Wrap Strips</td>
<td>Red 1/4&quot; X 1-1/2&quot; X 12' Roll</td>
<td>SSWRED</td>
<td></td>
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<tr>
<td></td>
<td>Blue 3/16&quot; X 2&quot; X 12' Roll</td>
<td>SSWBLU SSWBLU2</td>
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<tr>
<td>Restraining Collar</td>
<td>25' Roll (28 gauge galvanized steel)</td>
<td>SSWRC SSWRC2</td>
<td>WSC-8 WSC-8RED</td>
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<tr>
<td>Molded Firestop Collars</td>
<td>For 1.5&quot; Trade Size Pipe or Conduit</td>
<td>SSC151 LCC150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For 2&quot; Trade Size Pipe or Conduit</td>
<td>SSC202 LCC200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For 3&quot; Trade Size Pipe or Conduit</td>
<td>SSC301 LCC300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For 4&quot; Trade Size Pipe or Conduit</td>
<td>SSC400 LCC400</td>
<td></td>
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<tr>
<td></td>
<td>For 6&quot; Trade Size Pipe or Conduit</td>
<td>SSC600</td>
<td></td>
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<tr>
<td>EZ-Path Fire Rated Pathway</td>
<td>Single Device, full kit includes wall plates &amp; labels</td>
<td>EZDP33FWS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single Device, retrofit kit includes wall plates &amp; labels</td>
<td>EZDP33WR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire Rated Pathway Device</td>
<td>EZDP33FWS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One pair (2) single wall plates with wall labels</td>
<td>EZP133W</td>
<td></td>
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<tr>
<td></td>
<td>One pair (2) double wall plates with wall labels</td>
<td>EZP133W</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One pair (2) triple wall plates with wall labels</td>
<td>EZP133W</td>
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<tr>
<td></td>
<td>One pair (2) positioning clamps</td>
<td>EZP133PC</td>
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</tbody>
</table>

* Average volume of mixed mortar.
** Packaged to weight in 6 Gal. pail to allow headroom for mixing in the pail.
Pensil® (PEN) Silicone Sealants
Pensil PEN sealants are 1 part neutral curing premium silicone sealants providing an unmatched combination of strength and flexibility for firestopping through-penetrations and critical construction gaps.
• PEN300 is available in both self-leveling and non-sag grades, is a low modulus sealant designed and tested for the dynamic requirements of construction joints
• PEN200 2-part silicone foam is designed for sealing large penetrations and is ideally suited for cable or cable tray installation where easy addition or removal of cables is a vital consideration

PRIMARY USES:
- SSS Intumescent Firestop Sealant
  - Through-Penetration Firestops. Combustible and noncombustible. All constructions. UL Classified & FM Approved.
- LCI Intumescent Firestop Sealant
  - Through-Penetration Firestops. Combustible and noncombustible. Most constructions. UL Classified & FM Approved.
- LC Endothermic Firestop Sealant
  - Through-Penetration Firestops. Primarily noncombustible. Most constructions. UL Classified.
- ES Elastomeric Joint Sealant
  - Construction Joints – UL Classified

PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>SSS</th>
<th>LCI</th>
<th>LC</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Red</td>
<td>Pale Red</td>
<td>Blue</td>
<td>Pale Blue</td>
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<tr>
<td>Density (Lbs./Gal)</td>
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<td>9.0 ± .4</td>
<td>9.4 ± .4</td>
<td>10.3 ± .4</td>
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<tr>
<td>% Solids</td>
<td>80 ± 2</td>
<td>80 ± 2</td>
<td>80 ± 2</td>
<td>66 ± 2</td>
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<tr>
<td>pH</td>
<td>8.3 ± .5</td>
<td>9.0</td>
<td>8.3 ± .5</td>
<td>7.5 ± .5</td>
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<td>Flame Spread&lt;sup&gt;1&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
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<tr>
<td>Smoke Development</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Water Resistance</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
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<tr>
<td>Sag/Slump (ASTM C639)</td>
<td>&lt;0.1&quot;</td>
<td>&lt;0.1&quot;</td>
<td>&lt;0.1&quot;</td>
<td>&lt;0.1&quot;</td>
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<td>In-Service Temp.</td>
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<td>≤130°F</td>
<td>≤130°F</td>
<td>≤120°F</td>
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<td>Storage Warranty Period</td>
<td>1 Year</td>
<td>1 Year</td>
<td>1 Year</td>
<td>1 Year</td>
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<td>Expanded Volume</td>
<td>&gt;500%</td>
<td>&gt;1000%</td>
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<tr>
<td>Expansion Begins</td>
<td>230°F</td>
<td>320°F</td>
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<td>NA</td>
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<td>Expansion Ends</td>
<td>&gt;1000°F</td>
<td>&gt;1000°F</td>
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<td>NA</td>
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<td>Joint Movement Capability</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>±15%</td>
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<tr>
<td>Acoustical Testing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

<sup>1</sup> Tested to ASTM E84 (UL723) @ 14% coverage.
<sup>2</sup> When dry (drying time dependent on temperature and humidity).
<sup>3</sup> From date of shipment if stored in original unopened container at 80°F (27°C).
NA Not Applicable.

Firestop Mortar (Series SSM)
Ready-to-mix mortar provides an economical firestop material for medium to large penetrations. It can be combined with other SpecSeal products to provide solutions for large openings containing very complex multiple penetrants. This durable, low density seal is easy to repenetrate in retrofit situations.

Firestop Pillows (Series SS8)
Firestop Pillows resemble small cushions and are ideal for firestopping cable installations and are unexcelled in ease of retrofit. These pillows contain:...
PENSIL® 300 SEALANT

**PRIMARY USES:**
- Construction Joints
- Through Penetrations

**JOINT TYPES:**
- Expansion
- Seismic
- Control
- Head-of-Wall
- Safing or Perimeter

Color | Concrete
---|---
Flame Spread | 5
Smoke Development | 45
Hardness Shore | 25
Tensile Strength | 270
Peel Strength | 55 ppi
Movement Capability | ±50%
Stress @ 50% Extension | 35 lbs/in
Tooling Time | 30 Minutes
Tack Free Time, ASTM C619 | 5-9 Hours
Sag: Slump (NS Grade) ASTM C639 | 0.1
Ozone & UV Resistance | Excellent
Storage Warranty Period | 12 months

ELASTOMERIC SPRAY

**PRIMARY USES:**
- Construction Joints
- Through Penetrations

**JOINT TYPES:**
- Expansion
- Seismic
- Control
- Head-of-Wall
- Safing or Perimeter

Color | Pale Blue
Odor | Mild Latex
Lbs/Gal | 12
Coverage | 12.8 sq.ft./gal at 1/8"
0.31sq.m/l at 3.2mm
pH | 7.5
Solvent Content | None
Flame Spread | 0
Smoke Development | 25
Movement Capability | ±18.75%
Drying Time - Tack Free | 2 Hours
Drying Time - Dry-Through | 24-48 Hours
In-Service Temp. | ≤ 120°F (49°C)
Storage Warranty Period | 12 months
Acoustical Testing | Yes

FIRE RATED PATHWAY

**PRIMARY USES:**
- EZ-Path is designed for easy installation in walls and floors.
- EZ-Path Fire Rated Pathway is a raceway device designed to allow cables to penetrate fire-rated walls without the need for firestopping.

**SHELL:**
- 0.059" Gal. Steel
- Cable Loading Area: 6 sq.in. (nom.)
- Allowable Cable Fill: 100% Visual
- Fire Resistance Ratings: 1, 2 and 4 Hour
- Expansion Begins: 350°F
- Volume Expansion: 800%
- Sample Cable Volume (Cat 5): 120 (nom.)
- In-Service Temp: ≤ 120°F (49°C)

**SHELL COMPOSITION:**
- 0.059" Gal. Steel

**PERFORMANCE:**
- Acrylonitrile butadiene styrene (ABS) both solid and foam core
- Intumescent Wrap Strips (Series SSW)
- STI produces 2 types of highly intumescent wrap strips. These products are composed of a highly elastic and flexible water resistant polymer sandwiched between 2 thin layers of polyethylene. Designed for use in field manufactured collars and for "tuck-in" protection around smaller plastic pipes or for insulated pipes, these products protect a wide variety of pipe materials, including a full range of FRPP designs up to and including 6" and 8" (152 and 203 mm) trade sizes and up to 12" (305 mm) PVC.
- Elastomeric Spray (Series AS)
- This highly elastomeric coating is a nonhalogenated, latex based material designed to provide passive smoke and fire protection in construction joints.

**LIMITATIONS**
- The following conditions should be adhered to:
  - Product use and installation must conform to the manufacturer’s written installation instructions.
- E-Z-Path is designed for easy installation in walls and floors.
- E-Z-Path Fire Rated Pathway is a raceway device designed to allow cables to penetrate fire-rated walls without the need for firestopping.
**PRIMARY USES:**
- Application Requiring Easy Retrofit Through Small To Medium Openings – All Constructions.

**PENETRANTS:**
- Cable Trays
- Electrical, Data or Telephone Cable
- Electrical Conduits
- Innderucts
- Piping: Fan Coil Units

**PHYSICAL PROPERTIES:**
- Color: Red
- Nominal Density: 4 PCF (53 kg/m³)
- Flammability*: V-0
- Compression**: 25%-33%
- Expansion Begins: 230°F.
- In-Service Temp.: >130°F.

* Outer poly bag
** As installed

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**FIRESTOP MORTAR**

**PRIMARY USES:**
- Fill Down Medium To Large Openings – Concrete Or Masonry Construction For A Wide Variety Of Penetrants.

**PENETRANTS:**
- Metallic Pipes.
- Cable Trays, Bus Duct.
- Electrical Or Telephone Cable.
- Certain Nonmetallic Pipes.

**PHYSICAL PROPERTIES:**
- Color: Pale Red
- Flame Spread: 0
- Smoke Development: <5
- Application Temp.: 32°F - 100°F
- Tooling Time (Minutes): 30

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**WRAP STRIPS**

**PRIMARY USES:**
- Plastic Pipes (up to 8", 10" & 11")
- And Insulated Pipes Through All Constructions.

**PENETRANTS:**
- PVC, CPVC Up To 10".
- FR Polypropylene Up To 8".
- ABS & PVC Foam Core Up To 6".
- Pipe Insulation Up To 3".

**PHYSICAL PROPERTIES:**
- Color (Std, BLU): Red, Blue
- Length, Width: 1/2", 2" X 12"
- Thickness (Std, BLU): 1/4", 3/16", 1/8"
- Free Expanded Volume: 16-30X
- Expansion Begins: 250°F
- Expansion Ends: >1,000°F
- Moisture Resistance: Excellent

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**4. Technical Data**

**APPLICABLE STANDARDS**
- ASTM E814 Standard Test Method for Fire Tests of Through-Penetration Fire Stops

Underwriters Laboratories, Inc. (UL)
- UL 723 Standard for Safety for Surface Burning Characteristics of Building Materials
- UL 1479 Standard for Safety for Fire Tests of Through-Penetration Firestops
- UL 2079 Standard for Tests of Resistance of Building Joint Systems

Over 625 tested systems are presently published in applications ranging from through-penetration firestoppers to fire-rated joint seals.
- Through Penetration Firestop Systems are based upon tests conducted in accordance with ASTM E814. Additionally, appropriate products and systems are Factory Mutual Research Corporation (FM) approved
- SpecSeal Joint Sealants and Spray have been tested in a wide variety of joint configurations with ratings up to 4 hours. Joint designs have been tested to the requirements of UL 2079, ASTM E1966 and ASTM E399
5. Installation

PREPARATORY WORK
Proper adhesion and bonding of all sealants, coatings and mortars require that all contact surfaces be free of oil, loose dirt, rust or scale. Forming materials may be required in some cases to retain fill materials and may contribute to fire ratings.

METHODS
Consult product data sheets for individual products for more complete details concerning the suggested installation methods and limitations of these products.

Sealants
Sealants can be applied by troweling, using a standard mason’s trowel or a common putty knife. Sealants can be caulked in place using standard 1/10 gal (0.38 L) caulk tubes or by bulk loading guns directly from poly pail. Sealant may be pumped or power caulked using airless pumps designed for this purpose.

Elastomeric Spray
Coating is applied to construction surfaces using high volume, airless spray equipment. Consult manufacturer for equipment recommendations and full installation instructions.

Putty
Standard method of application is by hand packing. While bundled cables have been successfully fire tested, spacing of cables to allow placement of putty into interstices is required to ensure a tight smoke seal.

Mortar
Mortar can be placed using standard mason’s techniques and tools and may be pumped using an air operated double diaphragm pump or a plastering pump. Combustible penetrants can be protected using SpecSeal® Wrap Strips installed prior to placing mortar (consult installation instructions). Contact surfaces should be dampened with clean water to enhance adhesion.

Firestop Pillows
Firestop pillows are installed by stacking and compressing into the opening lengthwise to form a 9” (229 mm) thick seal. To better conform to cable bundle and completely fill the opening, pillows may be installed flat or upright on edge.

Firestop Collars
Firestop collars are designed to be installed on the external surface of walls or floors. Collars provide appropriate fastening method for closure around the pipe. Installer provides appropriate fasteners for attaching to the wall or floor surface. Collar is required at the underside of floors and on both sides of walls.

Wrap Strips
Wrap strips are designed to be installed by manually wrapping around the penetrant being protected. In “tuck-in” applications, wrap strip is secured to the penetrant using a steel tie wire or foil tape. A galvanized sheet metal restraining collar is available from the manufacturer for surface mounted applications.

Installation methods have been developed for steel deck floors or for sleeved penetrations that permit the collars to be installed from the top surface of the floor and suspended down into the opening.

28 gauge galvanized steel restraining collar is available from the manufacturer in 25’ (8 m) long rolls for applications up to and including 4” (102 mm) plastic pipes. Individually sized restraining collars in required heavier gauge metals for larger plastic pipes are also available.

STI Firestop Products

PRIMARY USES:
- Plastic Pipes up to 6” Through All Constructions.

PENETRANTS:
- PVC, CPVC Up To 6”.
- FR Polypropylene Up To 6”.
- ABS & PVC Foam Core Up To 4”.
- Two Wall Thicknesses For Smaller & Larger Annuilus.

PHYSICAL PROPERTIES:
- Shell Construction: 22 Gauge Galvanized Steel
- Intumescent Insert: Molded One Piece
- Expanded Volume: 6-24X
- Expansion Begins: 250°F
- Expansion Ends: >1,000°F
- Moisture Resistance: Excellent
EZ-Path Fire Rated Pathways
EZ-Path is designed for easy installation in walls. Tested and approved cable capacities range from 0 to 100% visual fill. EZ-Path, when installed with available wall plates, is designed for new cable installations. EZ-Path’s split body design also allows the device to be easily disassembled and installed around previously installed cables in existing construction.

6. Availability & Cost
STI Firestop Products are available from authorized STI distributors throughout the United States. STI warehouses these products in New Jersey and at strategic regional locations ensuring ready availability and prompt delivery. These products are designed to provide an economical installed cost and competitive pricing (at suggested resale). Pricing is available from local distributors. For the name of the local sales representative and/or distributor, call toll-free (800) 992-1180 or go online to www.stifirestop.com.

7. Warranty
Specified Technologies, Inc., manufactures its goods in a manner to be free of defects. All such products delivered to the Buyer are warranted to comply with physical and chemical specifications and description for a period of 1 year or such other as stated in the product data sheet. Specified Technologies, Inc., does not warrant the workmanship with which its products are applied by others and obligates itself to the Buyer only to replace or, at its option, refund the purchase price of any such product found to be defective. The liability of Specified Technologies, Inc., whether based on its warranties, contract or otherwise, shall in no case exceed the purchase price for the Specified Technologies, Inc., product and does not include incidental or consequential damages.

LIMITATIONS & EXCLUSIONS
The foregoing shall constitute the sole and exclusive remedy of the buyer and the sole and exclusive liability of Specified Technologies, Inc. The warranties stated in this paragraph are in lieu of all other warranties written or oral, expressed or implied, including any warranties of merchantability or fitness of purpose.

8. Maintenance
INSPECTION
Installations should be periodically inspected for subsequent damage. Any damage should be repaired using the original product and approved design.

RETROFIT
When adding or removing penetrants, care should be taken to minimize damage to the seal. Reseal using appropriate materials and methods as per the requirements of the altered installation.

9. Technical Services
Product data sheets are available for each product as well as UL Systems or CAD (.dwg) compatible files suitable for submittal or design purposes. STI provides toll-free technical support to assist in product selection and appropriate installation design.

10. Filing Systems
• First Source™
• Additional information is available from the manufacturer upon request.