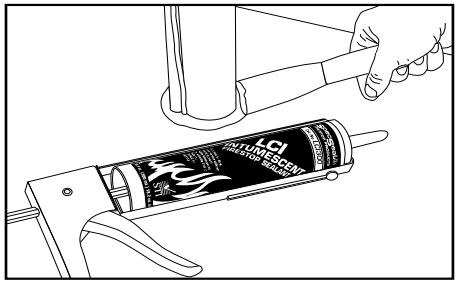
SERIES LCI INTUMESCENT SEALANT

APPLICATIONS

SpecSeal® LCI Sealant has a broad application base designed to seal a wide variety of common penetrations and construction joints. Penetrant types include insulated and non-insulated metallic pipes and tubes, non-metallic pipes and tubes, and common electrical service and power distribution, telephone, data, and TV cabling. This product is also used in conjunction with other SpecSeal® Products such as SpecSeal® Firestop Collars and Wrap Strips to protect larger plastic pipes. See Table A for a summary application list.





PHYSICAL PROPERTIES

Properties	Series LCI
Color	Red
Odor	Mild Latex
Density	9.0 lb/gal (1.08 kg/L)
pH	9.0
Solids Content By Weight	80%
Solids Content By Volume	66.9%
In Service Temperature	≤ 185°F (85°C)
Flame Spread	0*
Smoke Developed	0*
STC Rating	62 (Relates to specific construction) (ASTM E 90-04/ASTM C919)
VOC Content (EPA Method 24/ASTM D3960)	26 g/L
Shelf Life	2 yrs
Expansion Begins	350°F (177°C)
Volume Expansion	10X Free Expansion
Storage Temp.	40°F (4°C) - 95°F (35°C)

* Tested to ASTM E84 (UL723) at 14% surface coverage (modified test for sealants and caulks)

PRODUCT DESCRIPTION

SpecSeal® LCI Sealant is a versatile and economical intumescent sealant that has excellent caulking properties as well as high build properties on vertical or overhead surfaces. This single grade may be caulked (standard cartridge or bulk loaded), knifed or troweled. In addition, SpecSeal® LCI Sealant does not contain PCB's or asbestos.

SpecSeal® LCI Sealant is storage stable (when stored according to the manufacturer's recommendations), and will not separate or shrink when dried. SpecSeal® Series LCI Sealant will adhere to all common construction and penetrant materials and contains no solvents that might adversely effect plastic pipes or cable jackets.

FEATURES

- **Economical**: High performance without the high price!
- **Highly Intumescent**: Expands up to 8 times.
- **Excellent Smoke Seal**
- **Water Resistant** : Will not re-emulsify when dry.
- **Water-Based** for easy installation, cleanup, and disposal.
- **Acoustically Tested**: Reduces noise transmission
- **Safe...**Low VOC's, No Solvents, Non-Halogenated
- **Paintable**

PERFORMANCE

SpecSeal® LCI Sealant is the basis for systems that meet the exacting criteria of ASTM E814 (UL1479) and ASTM E1966 (UL2079) as well as to the time-temperature requirements of ASTM E119 (UL263). LCI provides up to a 4-hour fire rating for typical service penetrations through concrete or wood floors, concrete or masonry walls, as well as gypsum board walls. SpecSeal® LCI Sealant meets Class A finish requirements for Flame Spread and Smoke Development when tested in accordance with ASTM E84 (UL723). Meets or exceeds the requirements of ASTM C834, Type C, Grade 0. SpecSeal® LCI Sealant is also acoustically tested, demonstrating excellent sound attenuation properties.

FBC SYSTEM COMPATIBLE

FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® pipe and fittings. FBC, FlowGuard Gold, BlazeMaster and Corzan are licensed trademarks of The Lubrizol Corporation.

UL CERTIFIED SAFETY US-CA R14288

SpecSeal® LCI Intumescent Sealant Fill, Void Or Cavity Material Certified For Use In Joint Systems & Through-Penetration Firestop Systems. See UL Online Certifications Directory.

FM APPROVED

SPEARS

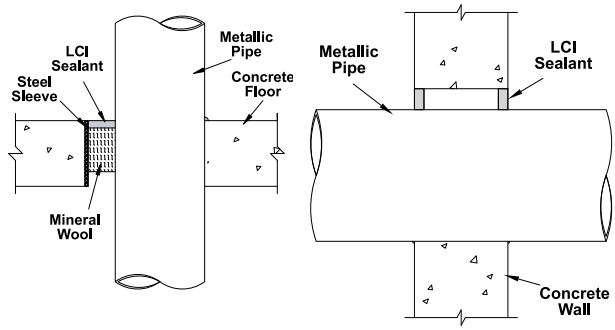
SPECIFICATIONS

The firestopping sealant shall be a water-resistant, intumescent latex sealant. The sealant when exposed to high heat or flame shall exhibit a free expansion of up to 10 times its original volume. The firestopping sealant shall contain no water soluble nor hygroscopic ingredients and shall be acoustically tested. The sealant shall be UL Classified and/or FM approved and tested to the requirements of ASTM E814 (UL1479), CAN/ULC S115 and shall meet Class A finish requirements when tested in accordance with ASTM E84 (UL723).

SPECIFIED DIVISIONS

DIV.	7	07840	Through-Penetration Firestopping
DIV.	13	13900	Special Construction Fire Suppression & Supervisory Systems
DIV.	15	15250	Mechanical Insulation – Fire Protection
DIV.	16	16050	Basic Electrical Materials & Methods

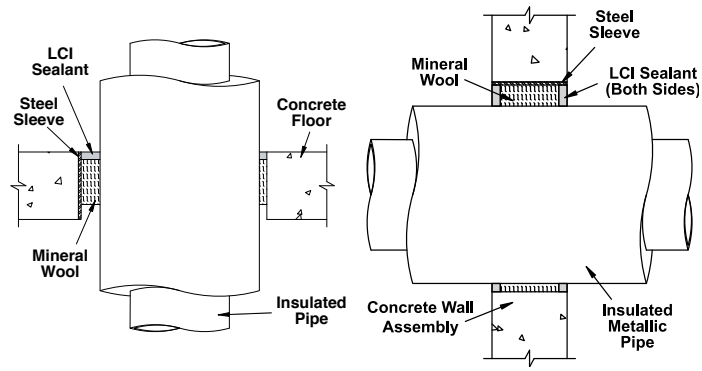
Fig 1: METALLIC PIPES - Concrete/Masonry Floors & Walls



UL System No. C-AJ-1353
F Rating: 3 Hr • T Rating: 0 Hr
Steel or Iron Pipe: <12", Copper Pipe: <4"
Annulus: 0" to 2"
Sealant Depth: 1/4"
Forming Material: Nom 4 pcf mineral wool (2 1/4" Depth)

UL System No. W-J-1098
F Rating: 2 Hr • T Rating: 1/4, 3/4 & 1 Hr
Steel or Iron Pipe: <8", Copper Pipe: <4"
Annulus: 0" to 2"
Sealant Depth: 5/8"

Fig 2: INSULATED METALLIC PIPES - Concrete/Masonry Floors & Walls



UL System No. C-AJ-5138
F Rating: 2 Hr • T Rating: 3/4 or 1 Hr
Steel or Iron Pipe: 6", Copper Pipe: 4"
Pipe Covering: Max. 2" fiber glass or mineral wool pipe insulation.
Annulus: 1/4" to 1-5/8" • Sealant: 1/2"
Forming: Nom. 4 pcf mineral wool (3" depth)

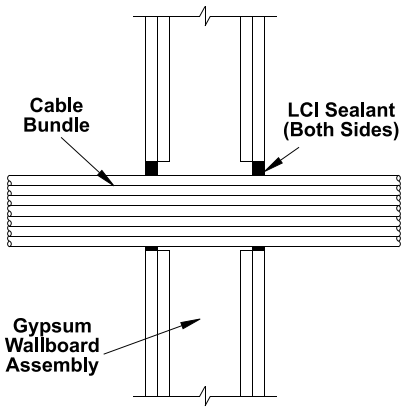
SEALANT REQUIREMENTS IN CUBIC INCHES PER 1/4 INCH OF INSTALLED DEPTH*

		Diameter of Opening - in. (mm)											
PIPE SIZE		1.5 (38)	2.0 (51)	3.0 (76)	4.0 (102)	5.0 (127)	6.0 (152)	7.0 (178)	8.0 (203)	10 (254)	12 (305)	14 (356)	26 (660)
Trade Size in. (mm)	Pipe O.D. in. (mm)												
0.5 (13)	0.840 (21)	0.3 (4.9)	0.6 (9.8)	1.6 (26.2)	3.0 (49.2)	4.8 (78.7)	6.9 (113.0)	9.5 (155.7)	12.4 (203.2)	19.5 (319.5)	28.1 (460.5)	38.3 (627.6)	132.6 (2173)
1.0 (25)	1.315 (33)	0.1 (1.6)	0.4 (6.6)	1.4 (22.9)	2.8 (45.9)	4.6 (75.4)	6.7 (109.8)	9.3 (152.4)	12.2 (200.0)	19.3 (316.3)	27.9 (457.2)	38.1 (624.3)	132.4 (2170)
1.5 (38)	1.900 (48)			1.1 (18.0)	2.4 (39.3)	4.2 (68.8)	6.4 (104.9)	8.9 (145.8)	11.9 (195.0)	18.9 (309.0)	27.6 (452.3)	37.8 (619.4)	132.0 (2163)
2.0 (51)	2.375 (60)			0.7 (11.5)	2.0 (32.8)	3.8 (62.3)	6.0 (98.3)	8.5 (139.2)	11.5 (188.4)	18.5 (309.7)	27.2 (445.7)	37.4 (568.6)	131.6 (2157)
2.5 (64)	2.875 (73)			0.1 (1.6)	1.5 (24.6)	3.3 (54.1)	5.4 (88.4)	8.0 (131.1)	10.9 (178.6)	18.0 (295.0)	26.7 (437.5)	36.9 (604.7)	131.1 (2148)
3.0 (76)	3.500 (79)				0.7 (11.5)	2.5 (41.0)	4.7 (77.0)	7.2 (118.0)	10.2 (167.1)	17.2 (281.9)	25.9 (424.4)	36.1 (591.6)	130.3 (2135)
3.5 (89)	4.000 (102)					1.8 (29.5)	3.9 (63.9)	6.5 (106.5)	9.4 (154.0)	16.5 (270.4)	25.1 (411.3)	35.3 (578.5)	129.6 (2124)
4.0 (102)	4.500 (114)					0.8 (13.1)	3.0 (49.2)	5.6 (91.8)	8.5 (139.3)	15.6 (255.6)	24.2 (396.6)	34.4 (563.7)	128.7 (2109)
6.0 (152)	6.625 (168)							1.1 (18.0)	4.0 (65.5)	11.1 (181.9)	19.7 (322.8)	29.9 (490.0)	124.2 (2035)
8.0 (203)	8.625 (219)									4.9 (80.3)	13.6 (222.9)	23.8 (390.0)	118.0 (1934)
10.0 (254)	10.750 (273)										5.6 (91.8)	15.8 (259.0)	110.0 (1803)
12.0 (305)	12.750 (324)											6.6 (108.1)	100.8 (1652)
24.0 (610)	24.000 (610)												19.6 (321.2)

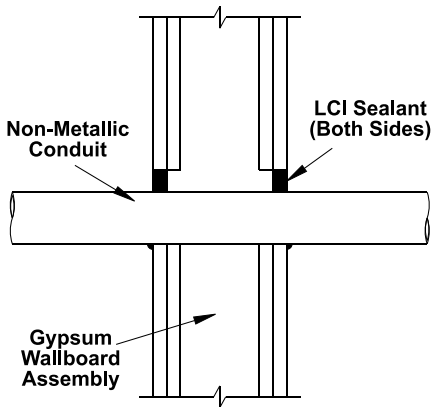
*Different Sealant Depth?

1/2" (12.7)	Multiply by 2
5/8" (15.9)	Multiply by 2.5
1" (25.4)	Multiply by 4
1-1/4" (31.8)	Multiply by 5

Fig. 3: ELECTRICAL, DATA OR COMMUNICATIONS - Gypsum Walls



UL System No. W-L-3169
F Rating: 1, 2 Hr • T Rating: 1/4 and 3/4
Up to 4-1/2˝ cable bundle
Annulus: 0˝ to 1/2˝ • Sealant: 5/8˝



UL System No. W-L-2241
F Rating: 1, 2 Hr • T Rating: 0, 1/4, 1, 1-3/4
<2˝ Rigid PVC or ENMT, CPVC, ABS
Annulus: 0-1˝ • Sealant 5/8˝

TABLE A: APPLICATIONS

TESTED AND CLASSIFIED FOR FIRE RESISTANCE

- **Metallic Pipes** including steel, iron, or copper pipe and tubing.
- **Nonmetallic Pipes, Conduits & Tubing** including PVC, CPVC, ABS, and PEX.
- **Electrical & Electronic Cabling** including service entrance, power distribution, computer, telephone, and television.
- **Metal Ductwork** including HVAC, bath and dryer vents.
- **Insulated Pipes** including heating, cooling, and condensation applications.
- **Complete Wood Floor firestopping package** for electrical, plumbing, HVAC, telephone, and television.

INSTALLATION INSTRUCTIONS

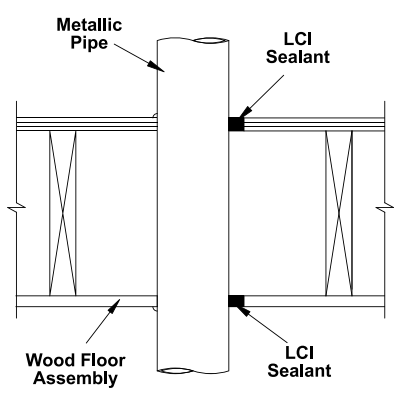
GENERAL: Areas to be protected must be clean and free of oil, loose dirt, rust or scale. Installation temperatures must be between 35°F (2°C) and 100°F (38°C). Allow product to dry a minimum of 24 hours before exposure to moisture.

SYSTEM SELECTION: Selection of an appropriate firestop system design is critical to the fire protection process. Space limitations preclude highly detailed information pertaining to individual application systems. Please consult the Product & Application Guide as well as the UL® Fire Resistance Directory for additional information.

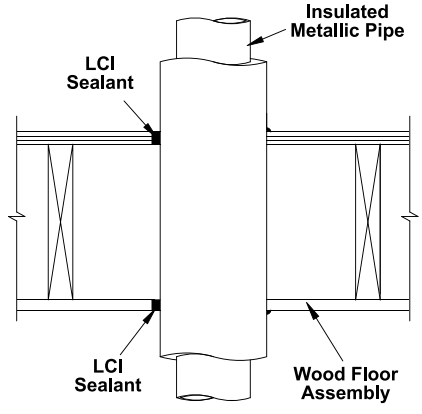
FORMING: Some installations may require forming as either an integral part of the system or as an option to facilitate installation. In systems where forming is required, mineral wool batts with a minimum nominal density of 4 PCF (64 kg/m^3) are generally required. Cut forming material oversize to allow for tight packing. Position forming material to allow for the proper depth of fill material.

FILL MATERIAL: SpecSeal® LCI Sealant may be installed by caulking using a standard caulking gun or from bulk containers using a bulk loading caulk gun, or by manually troweling using a mason's trowel or putty knife. If the sealant tends to pull back from a surface, clean the surface with a damp rag or sponge and reapply. Work sealant into all areas exercising care to eliminate voids or seams. The surface of the sealant can be smoothed using a putty knife dipped in water. Adding water to the sealant itself is not recommended. Sealant (when dry) may be painted using most non-solvent based paints.

Fig. 4: BARE & INSULATED METALLIC PIPES - Wood Floor Assemblies



UL System No. F-C-1074
F Rating: 1 & 2 Hr • T Rating: 1/4, 1/2 and 1 Hr
Steel, Iron or Copper: 4″ • Chase wall optional.
Annulus: 0″ to 1″ • Sealant: 5/8″ bottom, 3/4″ top



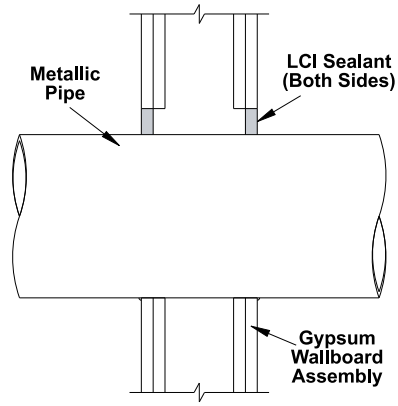
UL System No. F-C-5043
F Rating: 1 & 2 Hr • T Rating: 3/4 and 1 Hr
Steel, Iron or Copper: 4″
Pipe covering: 1″ Fiber Glass, Mineral fiber or AB/PVC • Chase wall optional.
Annulus: 0″ to 1″ • Sealant: 5/8″ bottom, 3/4″ top.

In gypsum wallboard penetrations, apply a minimum cove bead of 1/4" (6 mm) at the interface of the penetrant with both exterior wall surfaces.

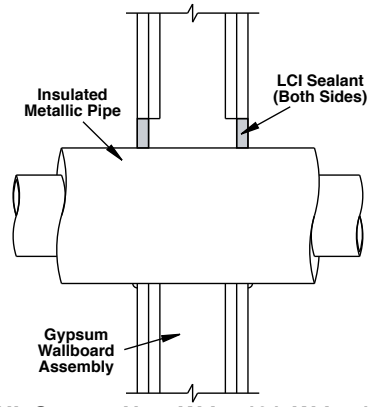
SMOKE SEALING: In some applications including firestop collars, SpecSeal® LCI Sealant is recommended as a smoke seal. It is suggested in these applications that the sealant be applied to both sides of walls. In floor applications, a sealing bead is suggested top and bottom.

LIMITATIONS: SpecSeal® LCI Sealant is water-based and cures through the evaporation of water. Low temperatures as well as high humidity may retard drying. Non-porous or impermeable backing materials, plates, or coatings may retard the drying process. Do not paint or seal in any way that prevents contact with air until sealant has dried through completely. This product has been designed to be safe with plastics and has been used extensively and successfully with a variety of different types of plastic pipes, tubes, and plastic cable insulations. Variations in these materials however, make it impossible to guarantee compatibility. STI strongly recommends that the user consult with the manufacturer of the pipe, tubing, or cable in question regarding any known sensitivities or potential restrictions before applying this product.

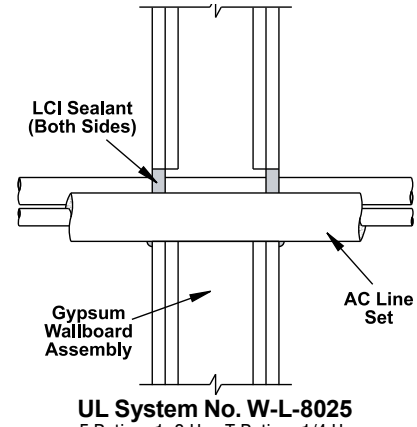
Fig. 5: BARE & INSULATED METALLIC PIPES - Gypsum Walls



UL System No. W-L-1222
F Rating: 1, 2 Hr • T Rating: 1/4, 3/4, 1 Hr
Steel or Iron pipe: 8″, Copper pipe: 4″
Annulus: 0″ to 2″ • Sealant: 5/8″



UL System Nos. W-L-5121, W-L-5122
F Rating: 1, 2 Hr • T Rating: 1 Hr & 1/4 Hr
Steel or Iron pipe: 6″, Copper pipe: 4″
Pipe covering: Max. 2″ fiber glass, 3/4″ AB/PVC or 2″ mineral fiber
Annulus: 0″ to 1-1/2″ • Sealant: 5/8″



UL System No. W-L-8025
F Rating: 1, 2 Hr • T Rating: 1/4 Hr
AC Line Set: Two copper tubes, one with 3/4″ AB/PVC and thermostat wire
Annulus: 0″ to 1″ • Sealant 5/8″

MAINTENANCE

No maintenance is normally required, however a periodic inspection of rated barriers is recommended to make sure that any new openings, modifications of previously installed firestops, or areas exhibiting physical damage, have been properly sealed or repaired. Subsequent sealing or repairs should be accomplished using SpecSeal® products per the original approved design.

RETROFIT: When adding or removing penetrants, care should be taken to minimize damage to the seal. Reseal using SpecSeal® products per the approved design. NOTE: New penetrants of a different nature than the original design may require a totally new firestop design or extensive modifications to the existing design. Reseal all openings as per the requirements of the modified design.

TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. UL Systems, Material Safety Data Sheets and other technical information is available through the Technical Library at www.stifirestop.com.

PRECAUTIONARY INFORMATION

Consult Material Safety Data Sheet for additional information on the safe handling and disposal of this material.

AVAILABILITY

SpecSeal® Series LCI Sealant is available from authorized STI distributors. Consult factory or website for the names and locations of the nearest sales representatives or distributors.

ORDERING INFORMATION

CAT. NO.	DESCRIPTION	
LCI300	Sealant 10.1 oz Tube	18.2 Cu In (300 ml)
LCI305	Sealant 5 Gal Pail	1,155 Cu In (19.0 L)
LCI320	Sealant 20 oz Sausage	36 Cu in. (592 ml)
LCI329	Sealant 29 oz Quart Tube	52 Cu in. (858 ml)



Additional SpecSeal Products...

Series SSS Sealant
The industry's most versatile sealant provides the firestopping solutions for a wide range of combustible and noncombustible applications. Water-based intumescent sealant expands up to 8X!

Intumescent Wrap Strips
Three grades of intumescent wrap strips provide an unmatched combination of flexibility, economy, and expansion (up to 30X). Systems for plastic pipes including FR Polypropylene up to 8" trade size!

SSC & LCC Firestop Collars
Easy to install, economical protection for ABS and PVC pipes (both solid and foam core) as well as CPVC, PVDF, and FRPP. LCC Collars are available up to 4" and SSC Collars are available up to 6" trade size.

Firestop Mortar
Lightweight, versatile and economical! The best choice for large or complex installations.

SSP Firestop Putty
Available both in bar form and in pads, putty provides easy retrofit for through-penetrations and economical protection for electrical boxes.

SIL Silicones
Sealants and foam for through-penetrations and construction joints. Unexcelled aging characteristics and flexibility.

Elastomeric Joint Seals
Economical products for sealing construction joints. Choose caulk or spray applied products tested to UL2079.

IMPORTANT NOTICE: All statements, technical information, and recommendations contained herein are based upon testing believed to be reliable, but the accuracy and completeness thereof is not guaranteed.

LIMITED WARRANTY: STI warrants that its products will be free of defects for one year from the date of purchase. In the event a product does not conform to this warranty, the sole and exclusive remedy is, at STI's option, replacement of the product or refund of the purchase price. The warranty provided herein shall be void and of no effect in the event that the product is not installed in accordance with STI's published instructions, listed systems and applicable building and safety codes. THIS WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS AND EXPRESSED OR IMPLIED WARRANTIES (including the implied warranties of merchantability or fitness for a particular use) AND UNDER NO CIRCUMSTANCES SHALL STI BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING, WITHOUT LIMITATION, ANY LOSS OF REVENUE, PROFIT OR USE. Prior to use, the user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability for subsequent use. No person other than an officer of STI is authorized to bind STI to any other warranty for any product for which this warranty is issued.

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Specified Technologies Inc.

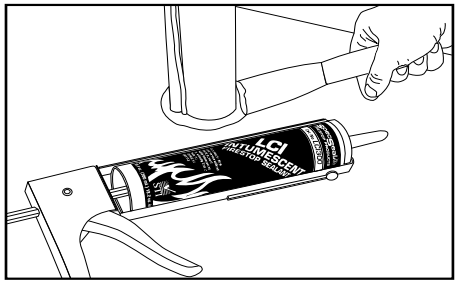
Specified Technologies Inc. • Somerville, NJ 08876 USA • Phone: 800.992.1180 • Fax: 908.526.9623

SERIES LCI INTUMESCENT SEALANT

APPLICATIONS

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PHYSICAL PROPERTIES

Properties	Series LCI
Color	Red
Odor	Mild Latex
Density	9.0 lb/gal (1.08 kg/L)
pH	9.0
Solids Content By Weight	80%
Solids Content By Volume	66.9%
In Service Temperature	≤ 185°F (85°C)
Flame Spread	0*
Smoke Developed	0*
STC Rating	62 (Relates to specific construction) (ASTM E 90-04/ASTM C919)
VOC Content (EPA Method 24/ASTM D3960)	26 g/L
Shelf Life	2 yrs
Expansion Begins	350°F (177°C)
Volume Expansion	10X Free Expansion
Storage Temp.	40°F (4°C) - 95°F (35°C)

* Tested to ASTM E84 (UL723) at 14% surface coverage (modified test for sealants and caulks)

PRODUCT DESCRIPTION

SpecSeal® LCI Sealant is a versatile and economical intumescent sealant that has excellent caulking properties as well as high build properties on vertical or overhead surfaces. This single grade may be caulked (standard cartridge or bulk loaded), knifed or troweled. In addition, SpecSeal® LCI Sealant does not contain PCB's or asbestos.

SpecSeal® LCI Sealant is storage stable (when stored according to the manufacturer's recommendations), and will not separate or shrink when dried. SpecSeal® Series LCI Sealant will adhere to all common construction and penetrant materials and contains no solvents that might adversely effect plastic pipes or cable jackets.

FEATURES

- **Economical**: High performance without the high price!
- **Highly Intumescent**: Expands up to 8 times.
- **Excellent Smoke Seal**
- **Water Resistant** : Will not re-emulsify when dry.
- **Water-Based** for easy installation, cleanup, and disposal.
- **Acoustically Tested**: Reduces noise transmission
- **Safe...**Low VOC's, No Solvents, Non-Halogenated
- **Paintable**

PERFORMANCE

SpecSeal® LCI Sealant is the basis for systems that meet the exacting criteria of ASTM E814 (UL1479) and ASTM E1966 (UL2079) as well as to the time-temperature requirements of ASTM E119 (UL263). LCI provides up to a 4-hour fire rating for typical service penetrations through concrete or wood floors, concrete or masonry walls, as well as gypsum board walls. SpecSeal® LCI Sealant meets Class A finish requirements for Flame Spread and Smoke Development when tested in accordance with ASTM E84 (UL723). Meets or exceeds the requirements of ASTM C834, Type C, Grade 0. SpecSeal® LCI Sealant is also acoustically tested, demonstrating excellent sound attenuation properties.

FBC SYSTEM COMPATIBLE

FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® pipe and fittings. FBC, FlowGuard Gold, BlazeMaster and Corzan are licensed trademarks of The Lubrizol Corporation.

UL CERTIFIED SAFETY US-CA R14288

SpecSeal® LCI Intumescent Sealant Fill, Void Or Cavity Material Certified For Use In Joint Systems & Through-Penetration Firestop Systems. See UL Online Certifications Directory.

FM APPROVED

SPEARS

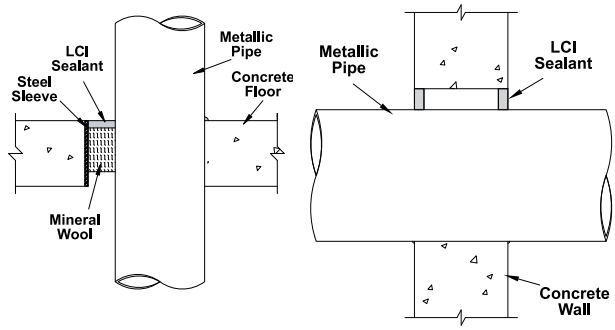
SPECIFICATIONS

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SPECIFIED DIVISIONS

DIV.	7	07840	Through-Penetration Firestopping
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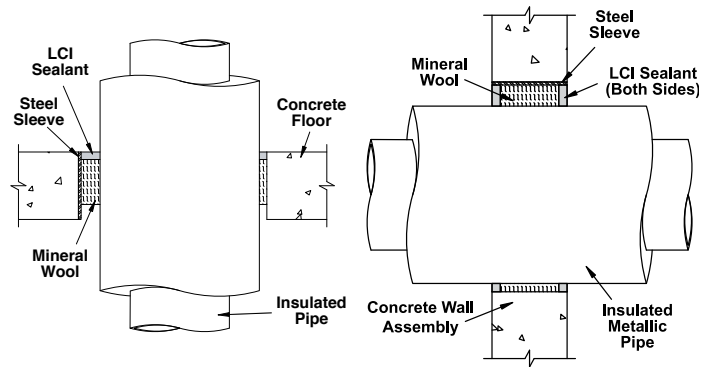
Fig 1: METALLIC PIPES - Concrete/Masonry Floors & Walls



UL System No. C-AJ-1353
F Rating: 3 Hr • T Rating: 0 Hr
Steel or Iron Pipe: <12", Copper Pipe: <4"
Annulus: 0" to 2"
Sealant Depth: 1/4"
Forming Material: Nom 4 pcf mineral wool (2 1/4" Depth)

UL System No. W-J-1098
F Rating: 2 Hr • T Rating: 1/4, 3/4 & 1 Hr
Steel or Iron Pipe: <8", Copper Pipe: <4"
Annulus: 0" to 2"
Sealant Depth: 5/8"

Fig 2: INSULATED METALLIC PIPES - Concrete/Masonry Floors & Walls



UL System No. C-AJ-5138
F Rating: 2 Hr • T Rating: 3/4 or 1 Hr
Steel or Iron Pipe: 6", Copper Pipe: 4"
Pipe Covering: Max. 2" fiber glass or mineral wool pipe insulation.
Annulus: 1/4" to 1-5/8" • Sealant: 1/2"
Forming: Nom. 4 pcf mineral wool (3" depth)

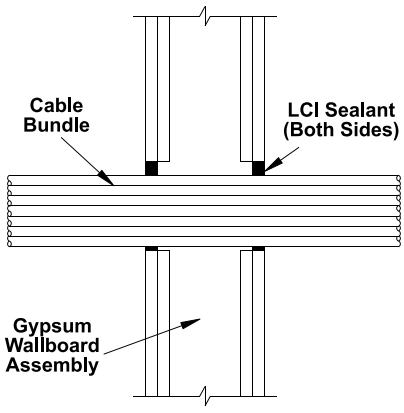
SEALANT REQUIREMENTS IN CUBIC INCHES PER 1/4 INCH OF INSTALLED DEPTH*

		Diameter of Opening - in. (mm)											
PIPE SIZE		1.5 (38)	2.0 (51)	3.0 (76)	4.0 (102)	5.0 (127)	6.0 (152)	7.0 (178)	8.0 (203)	10 (254)	12 (305)	14 (356)	26 (660)
Trade Size in. (mm)	Pipe O.D. in. (mm)												
0.5 (13)	0.840 (21)	0.3 (4.9)	0.6 (9.8)	1.6 (26.2)	3.0 (49.2)	4.8 (78.7)	6.9 (113.0)	9.5 (155.7)	12.4 (203.2)	19.5 (319.5)	28.1 (460.5)	38.3 (627.6)	132.6 (2173)
1.0 (25)	1.315 (33)	0.1 (1.6)	0.4 (6.6)	1.4 (22.9)	2.8 (45.9)	4.6 (75.4)	6.7 (109.8)	9.3 (152.4)	12.2 (200.0)	19.3 (316.3)	27.9 (457.2)	38.1 (624.3)	132.4 (2170)
1.5 (38)	1.900 (48)			1.1 (18.0)	2.4 (39.3)	4.2 (68.8)	6.4 (104.9)	8.9 (145.8)	11.9 (195.0)	18.9 (309.0)	27.6 (452.3)	37.8 (619.4)	132.0 (2163)
2.0 (51)	2.375 (60)			0.7 (11.5)	2.0 (32.8)	3.8 (62.3)	6.0 (98.3)	8.5 (139.2)	11.5 (188.4)	18.5 (309.7)	27.2 (445.7)	37.4 (568.6)	131.6 (2157)
2.5 (64)	2.875 (73)			0.1 (1.6)	1.5 (24.6)	3.3 (54.1)	5.4 (88.4)	8.0 (131.1)	10.9 (178.6)	18.0 (295.0)	26.7 (437.5)	36.9 (604.7)	131.1 (2148)
3.0 (76)	3.500 (79)				0.7 (11.5)	2.5 (41.0)	4.7 (77.0)	7.2 (118.0)	10.2 (167.1)	17.2 (281.9)	25.9 (424.4)	36.1 (591.6)	130.3 (2135)
3.5 (89)	4.000 (102)					1.8 (29.5)	3.9 (63.9)	6.5 (106.5)	9.4 (154.0)	16.5 (270.4)	25.1 (411.3)	35.3 (578.5)	129.6 (2124)
4.0 (102)	4.500 (114)					0.8 (13.1)	3.0 (49.2)	5.6 (91.8)	8.5 (139.3)	15.6 (255.6)	24.2 (396.6)	34.4 (563.7)	128.7 (2109)
6.0 (152)	6.625 (168)							1.1 (18.0)	4.0 (65.5)	11.1 (181.9)	19.7 (322.8)	29.9 (490.0)	124.2 (2035)
8.0 (203)	8.625 (219)									4.9 (80.3)	13.6 (222.9)	23.8 (390.0)	118.0 (1934)
10.0 (254)	10.750 (273)										5.6 (91.8)	15.8 (259.0)	110.0 (1803)
12.0 (305)	12.750 (324)											6.6 (108.1)	100.8 (1652)
24.0 (610)	24.000 (610)												19.6 (321.2)

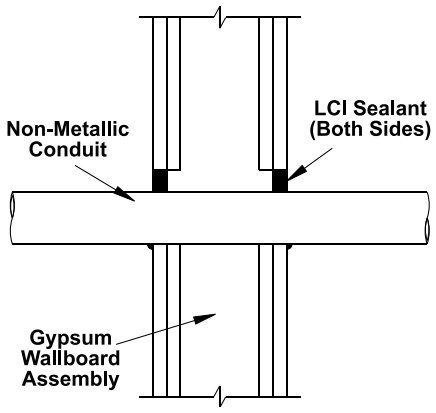
*Different Sealant Depth?

1/2" (12.7)	Multiply by 2
5/8" (15.9)	Multiply by 2.5
1" (25.4)	Multiply by 4
1-1/4" (31.8)	Multiply by 5

Fig. 3: ELECTRICAL, DATA OR COMMUNICATIONS - Gypsum Walls



UL System No. W-L-3169
F Rating: 1, 2 Hr • T Rating: 1/4 and 3/4
Up to 4-1/2˝ cable bundle
Annulus: 0˝ to 1/2˝ • Sealant: 5/8˝



UL System No. W-L-2241
F Rating: 1, 2 Hr • T Rating: 0, 1/4, 1, 1-3/4
<2˝ Rigid PVC or ENMT, CPVC, ABS
Annulus: 0-1˝ • Sealant 5/8˝

TABLE A: APPLICATIONS

TESTED AND CLASSIFIED FOR FIRE RESISTANCE

- **Metallic Pipes** including steel, iron, or copper pipe and tubing.
- **Nonmetallic Pipes, Conduits & Tubing** including PVC, CPVC, ABS, and PEX.
- **Electrical & Electronic Cabling** including service entrance, power distribution, computer, telephone, and television.
- **Metal Ductwork** including HVAC, bath and dryer vents.
- **Insulated Pipes** including heating, cooling, and condensation applications.
- **Complete Wood Floor firestopping package** for electrical, plumbing, HVAC, telephone, and television.

INSTALLATION INSTRUCTIONS

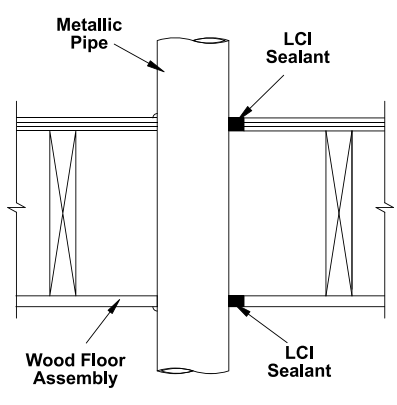
GENERAL: Areas to be protected must be clean and free of oil, loose dirt, rust or scale. Installation temperatures must be between 35°F (2°C) and 100°F (38°C). Allow product to dry a minimum of 24 hours before exposure to moisture.

SYSTEM SELECTION: Selection of an appropriate firestop system design is critical to the fire protection process. Space limitations preclude highly detailed information pertaining to individual application systems. Please consult the Product & Application Guide as well as the UL® Fire Resistance Directory for additional information.

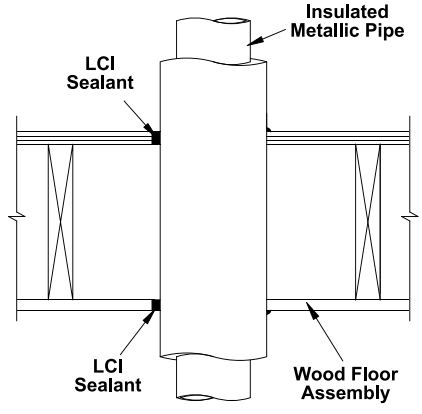
FORMING: Some installations may require forming as either an integral part of the system or as an option to facilitate installation. In systems where forming is required, mineral wool batts with a minimum nominal density of 4 PCF (64 kg/m^3) are generally required. Cut forming material oversize to allow for tight packing. Position forming material to allow for the proper depth of fill material.

FILL MATERIAL: SpecSeal® LCI Sealant may be installed by caulking using a standard caulking gun or from bulk containers using a bulk loading caulk gun, or by manually troweling using a mason's trowel or putty knife. If the sealant tends to pull back from a surface, clean the surface with a damp rag or sponge and reapply. Work sealant into all areas exercising care to eliminate voids or seams. The surface of the sealant can be smoothed using a putty knife dipped in water. Adding water to the sealant itself is not recommended. Sealant (when dry) may be painted using most non-solvent based paints.

Fig. 4: BARE & INSULATED METALLIC PIPES - Wood Floor Assemblies



UL System No. F-C-1074
F Rating: 1 & 2 Hr • T Rating: 1/4, 1/2 and 1 Hr
Steel, Iron or Copper: 4″ • Chase wall optional.
Annulus: 0″ to 1″ • Sealant: 5/8″ bottom, 3/4″ top



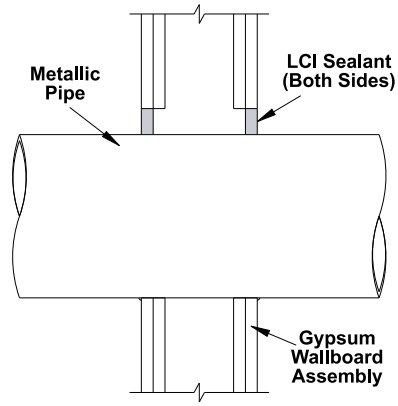
UL System No. F-C-5043
F Rating: 1 & 2 Hr • T Rating: 3/4 and 1 Hr
Steel, Iron or Copper: 4″
Pipe covering: 1″ Fiber Glass, Mineral fiber or AB/PVC • Chase wall optional.
Annulus: 0″ to 1″ • Sealant: 5/8″ bottom, 3/4″ top.

In gypsum wallboard penetrations, apply a minimum cove bead of 1/4" (6 mm) at the interface of the penetrant with both exterior wall surfaces.

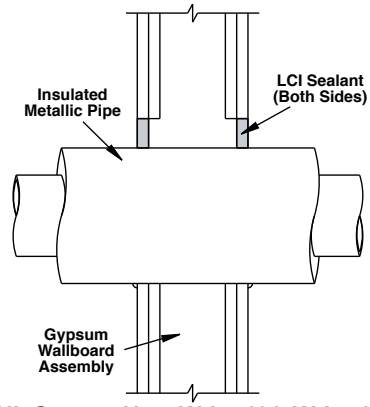
SMOKE SEALING: In some applications including firestop collars, SpecSeal® LCI Sealant is recommended as a smoke seal. It is suggested in these applications that the sealant be applied to both sides of walls. In floor applications, a sealing bead is suggested top and bottom.

LIMITATIONS: SpecSeal® LCI Sealant is water-based and cures through the evaporation of water. Low temperatures as well as high humidity may retard drying. Non-porous or impermeable backing materials, plates, or coatings may retard the drying process. Do not paint or seal in any way that prevents contact with air until sealant has dried through completely. This product has been designed to be safe with plastics and has been used extensively and successfully with a variety of different types of plastic pipes, tubes, and plastic cable insulations. Variations in these materials however, make it impossible to guarantee compatibility. STI strongly recommends that the user consult with the manufacturer of the pipe, tubing, or cable in question regarding any known sensitivities or potential restrictions before applying this product.

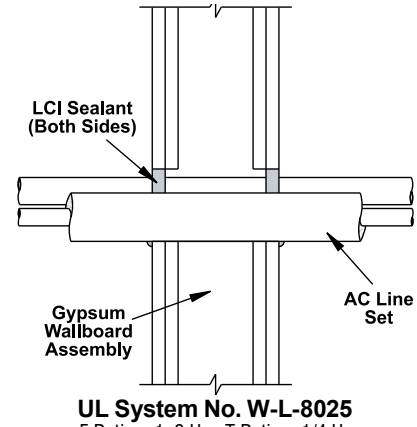
Fig. 5: BARE & INSULATED METALLIC PIPES - Gypsum Walls



UL System No. W-L-1222
F Rating: 1, 2 Hr • T Rating: 1/4, 3/4, 1 Hr
Steel or Iron pipe: 8″, Copper pipe: 4″
Annulus: 0″ to 2″ • Sealant: 5/8″



UL System Nos. W-L-5121, W-L-5122
F Rating: 1, 2 Hr • T Rating: 1 Hr & 1/4 Hr
Steel or Iron pipe: 6″, Copper pipe: 4″
Pipe covering: Max. 2″ fiber glass, 3/4″ AB/PVC or 2″ mineral fiber
Annulus: 0″ to 1-1/2″ • Sealant: 5/8″



UL System No. W-L-8025
F Rating: 1, 2 Hr • T Rating: 1/4 Hr
AC Line Set: Two copper tubes, one with 3/4″ AB/PVC and thermostat wire
Annulus: 0″ to 1″ • Sealant 5/8″

MAINTENANCE

No maintenance is normally required, however a periodic inspection of rated barriers is recommended to make sure that any new openings, modifications of previously installed firestops, or areas exhibiting physical damage, have been properly sealed or repaired. Subsequent sealing or repairs should be accomplished using SpecSeal® products per the original approved design.

RETROFIT: When adding or removing penetrants, care should be taken to minimize damage to the seal. Reseal using SpecSeal® products per the approved design. NOTE: New penetrants of a different nature than the original design may require a totally new firestop design or extensive modifications to the existing design. Reseal all openings as per the requirements of the modified design.

TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. UL Systems, Material Safety Data Sheets and other technical information is available through the Technical Library at www.stifirestop.com.

PRECAUTIONARY INFORMATION

Consult Material Safety Data Sheet for additional information on the safe handling and disposal of this material.

AVAILABILITY

SpecSeal® Series LCI Sealant is available from authorized STI distributors. Consult factory or website for the names and locations of the nearest sales representatives or distributors.

ORDERING INFORMATION

CAT. NO.	DESCRIPTION	
LCI300	Sealant 10.1 oz Tube	18.2 Cu In (300 ml)
LCI305	Sealant 5 Gal Pail	1,155 Cu In (19.0 L)
LCI320	Sealant 20 oz Sausage	36 Cu in. (592 ml)
LCI329	Sealant 29 oz Quart Tube	52 Cu in. (858 ml)



Additional SpecSeal Products...

Series SSS Sealant
The industry's most versatile sealant provides the firestopping solutions for a wide range of combustible and noncombustible applications. Water-based intumescent sealant expands up to 8X!

Intumescent Wrap Strips
Three grades of intumescent wrap strips provide an unmatched combination of flexibility, economy, and expansion (up to 30X). Systems for plastic pipes including FR Polypropylene up to 8" trade size!

SSC & LCC Firestop Collars
Easy to install, economical protection for ABS and PVC pipes (both solid and foam core) as well as CPVC, PVDF, and FRPP. LCC Collars are available up to 4" and SSC Collars are available up to 6" trade size.

Firestop Mortar
Lightweight, versatile and economical! The best choice for large or complex installations.

SSP Firestop Putty
Available both in bar form and in pads, putty provides easy retrofit for through-penetrations and economical protection for electrical boxes.

SIL Silicones
Sealants and foam for through-penetrations and construction joints. Unexcelled aging characteristics and flexibility.

Elastomeric Joint Seals
Economical products for sealing construction joints. Choose caulk or spray applied products tested to UL2079.

IMPORTANT NOTICE: All statements, technical information, and recommendations contained herein are based upon testing believed to be reliable, but the accuracy and completeness thereof is not guaranteed.

LIMITED WARRANTY: STI warrants that its products will be free of defects for one year from the date of purchase. In the event a product does not conform to this warranty, the sole and exclusive remedy is, at STI's option, replacement of the product or refund of the purchase price. The warranty provided herein shall be void and of no effect in the event that the product is not installed in accordance with STI's published instructions, listed systems and applicable building and safety codes. THIS WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS AND EXPRESSED OR IMPLIED WARRANTIES (including the implied warranties of merchantability or fitness for a particular use) AND UNDER NO CIRCUMSTANCES SHALL STI BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING, WITHOUT LIMITATION, ANY LOSS OF REVENUE, PROFIT OR USE. Prior to use, the user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability for subsequent use. No person other than an officer of STI is authorized to bind STI to any other warranty for any product for which this warranty is issued.

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