SpecSeal FIRESTOP PRODUCTS®

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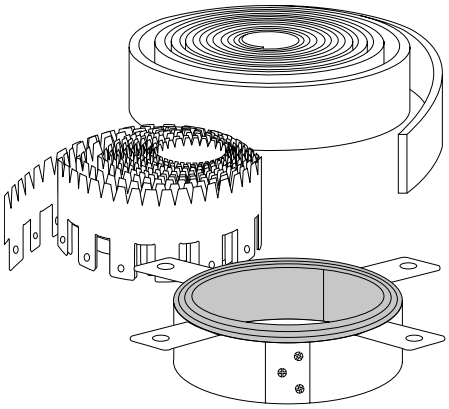
PRODUCT DATA SHEET

Intumescent BLU Wrap Strip



CLASSIFIED UL® 3L73

FILL, VOID OR CAVITY MATERIALS CLASSIFIED BY UNDERWRITERS LABORATORIES INC. ® FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS.

SEE UL FIRE RESISTANCE DIRECTORY

CLASSIFIED cUL®

CLASSIFIED FILL, VOID, OR CAVITY MATERIALS FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS. SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL FIRE RESISTANCE DIRECTORY

FEATURES

- **Rapid Expansion:** Closes off burning penetrants faster.
- **High Volume Char:** Expands up to 30 times!
- **Water-Resistant:** No soluble or hygroscopic ingredients.
- **Economical:** 12' roll means no piecing... less waste!
- **Highly Flexible:** No foil... soft...supple... easier to install!
- **Versatile** performer for a wide range of complex applications.

1. PRODUCT DESCRIPTION

SpecSeal® Series BLU Wrap Strip is a highly flexible, elastomeric strip designed to firestop penetrations in fire-rated walls, floors and floor/ceiling assemblies. It is available in convenient 12' rolls that facilitate installation and cut down on waste.

This product utilizes STI's patented two-stage intumescent technology, providing a very responsive and highly directionalized expansion. Expansion is extremely fast, providing quick closure for burning combustible pipes.

When exposed to temperatures in excess of 250°F (121°C), the SpecSeal® Wrap Strips begin to expand (intumesce) rapidly to form a dense, highly insulative char. Its free expansion ranges from 20 to 30 times original (pre-expanded) volume. Expansion continues up to temperatures of 1,000°F.

2. APPLICATIONS

SpecSeal® Series BLU Wrap Strips have been designed especially for applications involving sensitive, combustible piping. These strips have been engineered to provide the maximum expansion within a relatively thin matrix. This design allows for installation of firestops within steel sleeves or in areas where access may be limited due to the positioning of adjacent penetrants or construction members.

Installations have been developed for both "tuck-in" applications (where strips are fastened around the penetrant and then slid into the opening) and restraining collar assemblies (for surface mounting).

SpecSeal® Series BLU Wrap strips are suitable for use in most common forms of construction including concrete floors, concrete over steel deck, concrete walls, concrete block and gypsum board walls. Systems have been developed and tested for PVC, CPVC, ABS, Natural and FR polypropylene pipes up to and including 10" trade size (6" to 8" trade size polypropylene). Flexible system designs accommodate both surface mounting and top down installations within steel sleeves.

NOTICE: The use of this product may be regulated by regional or local codes. CONSULT THE LOCAL AUTHORITY HAVING JURISDICTION.

5. SPECIFICATIONS

The wrap strip material shall be a highly flexible, two-stage intumescent material. The wrap strip shall provide a minimum of 30x free expansion and shall contain no water soluble expansion ingredients. The specified material shall be approved for a wide range of applications including combustible and noncombustible penetrants when used by itself or in combination with other products from the same manufacturer. The wrap strip shall be UL Classified and/or FM Systems Approved and tested to the requirements of ASTM E814 (UL1479).

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

Table A: PHYSICAL PROPERTIES

Catalog Number	SSWBLU
Color	Blue
Weight	3.0 Lb. (12' Roll)
Dimensions	12' x 2" x 3/16" (nom.)
Expansion Begins	250° F. (1st stage) 350°F (2nd stage)
Volume Expansion	20 to 30X (free expansion)
In-Service Temp.	≤ 120° F.
Oven Aging	No Change (60°C)*
Humidity	No Change
Exposure	(60°C, 98% R.H.)*

* Evaluation of physical properties and total expansion.

Table B: BLU WRAP STRIP AND RESTRAINING COLLAR REQUIREMENTS

This table provides the following information related to the firestopping of plastic pipes utilizing "tuck-in" or restraining collar assemblies:

1. Number of layers.
2. Length of each layer and total number of required layers.
3. Length of SSWRC restraining collars (1" min. added for overlap)

Trade Size	Pipe O.D.	Length of Layers & Restraining Collar (R.C.) in Inches 1st	2nd	3rd	4th	TOTAL	R.C.
1/2"	0.84"	3.9				3.9	
3/4"	1.05"	4.7				4.7	
1"	1.313"	5.3				5.3	
1-1/4"	1.66"	6.6				6.6	
1-1/2"	1.9"	7.2				7.2	9.0
2"	2.375"	8.8				8.8	10.0
2-1/2"	2.875"	10.4	11.5			21.9	13.0
3"	3.5"	12.2	13.5			25.7	15.0
3-1/2"	4.0"	13.8	14.9	16.1		44.8	18.0
4"	4.5"	15.4	16.5	17.7		49.6	19.0
6"	6.625"	21.9	23.2	24.4		139[1]	26.0[3]
8"	8.625"	28.3	29.5	30.7	31.8	240.6[2]	33.0[3]
10"	10.750"	35.2	36.5	37.7	38.8	370.0[4]	40.0[4]

[1] Requires double stack of 3 layers of wrap strip.
[2] Requires double stack of 4 layers of wrap strip.
[3] Requires WSC8 Restraining Collar for 6 in. and 8 in. trade size pipes
[4] Requires WSC12 Restraining Collar and 2-1/2 stacks of 4 layers of wrap strip.

3. PHYSICAL PROPERTIES

See Table A. These materials are extremely stable. Long term aging studies indicate no significant loss of physical properties nor significant change in expansion properties after elevated temperature, humidity, and immersion testing. Consult factory for additional information.

4. PERFORMANCE

SpecSeal® Intumescent Wrap Strips are the basis for systems that meet the exacting criteria of ASTM E814 (UL1479). Systems have been tested to provide up to 4 hour fire ratings for most common forms of construction including a wide range of plastic pipes up to 10" trade size.

STI designed firestop systems are engineered to maximize the fire resistance of the seal by not only sealing off the spread of fire and hot gasses but also by minimizing the amount of heat conducted through the assembly. Thus all systems have been designed to provide T Ratings capable of matching the rating of the wall or floor assembly (where possible). Consult factory for information not available in UL Fire Resistance Directory as of this printing.

5. SPECIFICATIONS

See Page 1.

6. INSTALLATION

GENERAL: Areas to be protected must be free of oil, loose dirt, rust or scale. In most cases, walls require symmetrical applications. Wrap strips must be applied to both sides.

SYSTEM SELECTION: THE FOLLOWING INFORMATION IS INTENDED FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE CONSTRUED AS A RECOMMENDATION FOR SUITABILITY FOR USE.

Proper methods and materials are critical to firestopping. A number of methods have been developed to suit a wide variety of firestopping applications. Consult the STI Product and Application Guide for appropriate design drawings and installation information. Additional systems may also be available for applications not listed here. Consult your local distributor, sales rep. or call STI toll free at (800) 992-1180.

TUCK-IN INSTALLATIONS: Wrap layer of wrap strip around penetrant. Masking tape may be used to temporarily secure wrap strip. Apply successive layers of wrap strip as required by system chosen. Secure layers in place using steel tie wire or foil tape as required. Slide wrap strip into opening and position as follows: In concrete floors, position so that it is recessed down 1/2" from the top surface of the floor. In concrete walls install on both sides so that strip is recessed 1/2" into opening from wall surface. In gypsum board walls slide wrap strip ring in to the mid-point of the membranes on both sides so that ring sticks into and out of membrane an equal distance. Caulk annulus between wrap strip ring and wall of opening to close gap around ring.

Fig 1

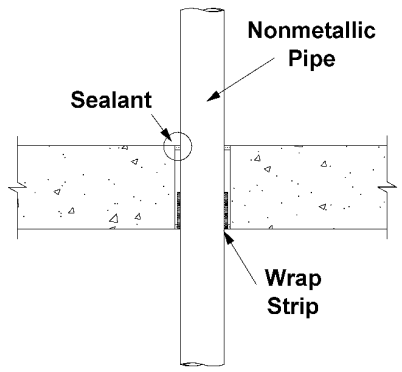


Fig 2

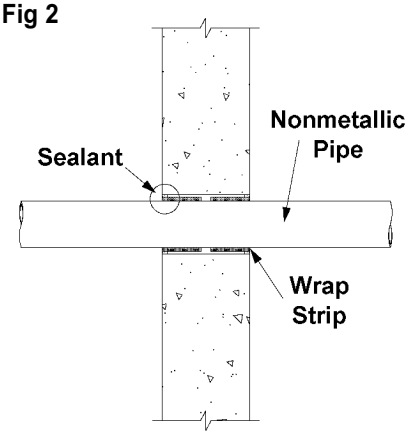


Fig 3

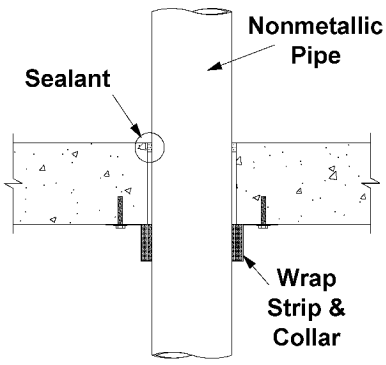


Fig 4

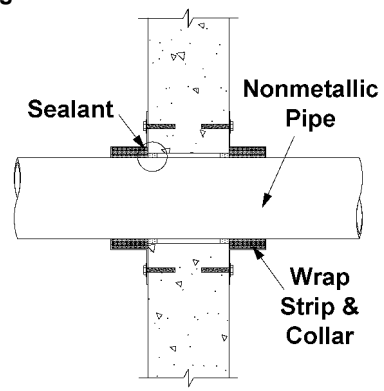


Fig 5

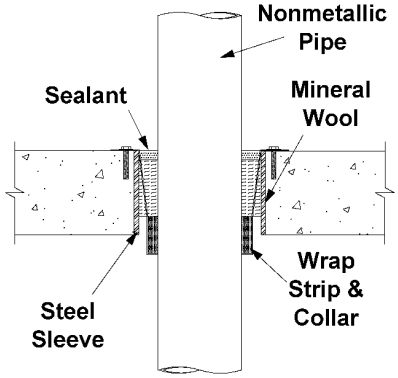
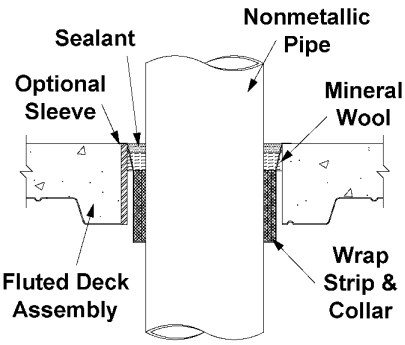


Fig 6



RESTRAINING COLLAR INSTALLATIONS: Where annular spaces are restricted or where tuck-in or poured or embedded systems are unsuitable, surface mounted restraining collars are recommended. Caulk annular space around pipe or pipe insulation with a sufficient amount of SpecSeal® Series SSS Sealant to close gap and effect smoke seal. Caulking both sides of wall and top and bottom of floors is recommended. Some systems may require the annulus to be packed with mineral wool to the full depth prior to application of sealant. Apply layers of wrap strip as required and secure using masking tape or tie wire. Calculate the length of restraining collar required to completely wrap around the outer diameter of the wrap strip rings plus an additional inch of overlap. Collar designs may require either the use of #8 sheet metal screws or stainless steel band clamps as a method of closing and securing the restraining collar (consult appropriate system drawing). Screws must be long enough to pierce sheet metal layers and one layer of wrap strip. Make sure screws do not penetrate deeply enough to damage pipe or pipe insulation. As an alternate fastening method, a stainless steel band clamp may be fastened around the restraining collar at the midpoint of the wrap strip.

NOTE: Installations using Series BLU wrap strips for pipes greater than 4" require heavier gauge metals. Consult factory for specific requirements and availability.

PLASTIC PIPES: "Tuck-In" installations are suitable for vented or closed systems up to and including 2" trade size pipes (3" for certain PVC applications). Above 2" trade size, surface mounted collars are recommended.

IMPORTANT NOTE: Installation details are application specific. Thus precise details for all installations cannot be included in this document. Consult STI's Product & Application Guide, the UL Fire Resistance Directory, or STI's automated information attendant system Facts-On-Demand (888-526-6800) for more complete information.

7. MAINTENANCE

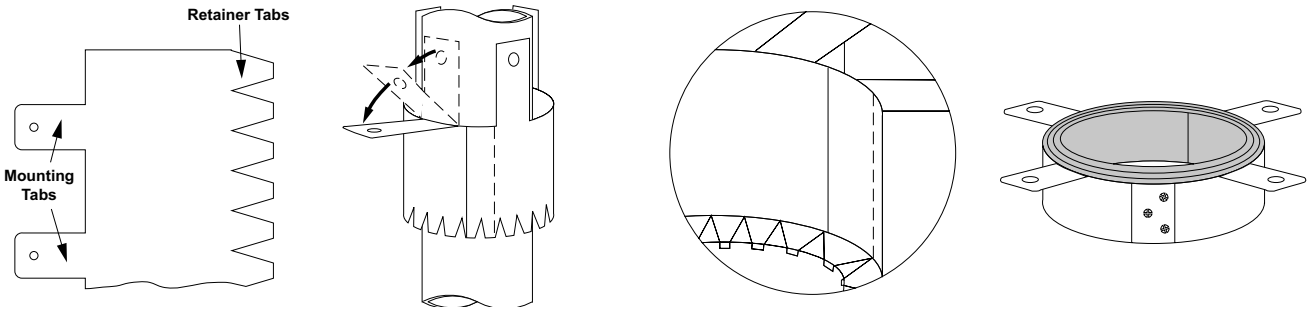
INSPECTION: Installations should be inspected periodically for subsequent damage. Any damage should be repaired using SpecSeal® products per the original approved design.

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 new design.

8. TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. Design System Drawings suitable for submittal or specification purposes are available on request.

Fig 7: USE OF RESTRAINING COLLAR



1.Measure and cut collar to length.

2. Secure to pipe and bend mounting tabs.

3. Bend retainer tabs*.

4. Finished collar.

* NOTE: Retainer tabs shall be sufficient length to contain all wrap strip layers. At the option of the installer, retainer tabs may be either cut or bent flush against pipe as shown.

Fig 8

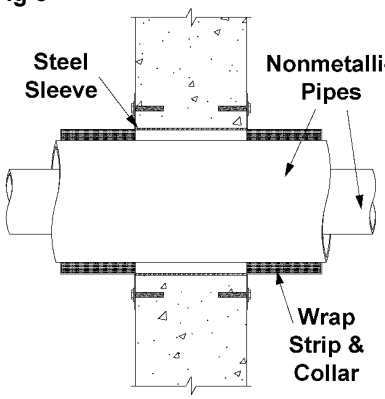


Fig 9

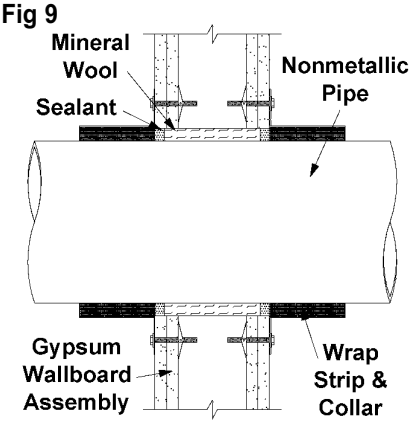
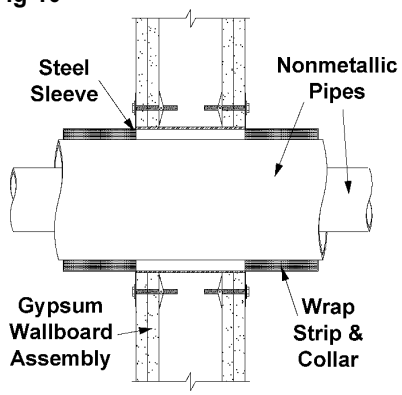


Fig 10



9. PRECAUTIONARY INFORMATION

Consult Material Safety Data Sheet for additional information on the safe handling and disposal of this material. Wash areas of skin contact with soap and water. Avoid contact with eyes.

10. AVAILABILITY

SpecSeal® Series SSWBLU Wrap Strip is available as a roll 2" x 12' packed one per box. SpecSeal® products are available from authorized STI distributors nationwide. Consult factory for the names and locations of the nearest sales representatives or distributors.

Table C: ORDERING INFORMATION

Cat. No.	Name	Description
SSWBLU	Wrap Strip	12' x 2˝ x 3/16˝ Intumescent Strip
SSWRC	2˝ Restr. Collar	30 gauge sheet metal for ≤ 4˝ pipes (25' roll)
WSC8	3˝ Restr. Collar	22 gauge sheet metal for 6˝ & 8˝ pipes (36˝ length)

Additional SpecSeal Products...

Series SSS Sealant	The industry's most versatile sealant provides the firestoppping solutions for a wide range of combustible and noncombustible applications. Water-based intumescent sealant expands up to 8x!
Series LC Sealant	An economical latex firestop sealant for noncombustible applications. Non-halogenated, easy clean up, flexible, water-resistant!
SSP Firestop Putty	Available both in bar form and in pads, putty provides easy retrofit for through-penetrations and economical protection for electrical boxes.
SSB Firestop Pillows	Durable, monolithic pillows for installations requiring quick and easy retrofitting. Systems designed for pipes, cables and cable tray in all types of construction!
Firestop Mortar	Lightweight, versatile and economical! The best choice for large or complex installations.
Pensil® Silicones	Sealants and foam for through-penetrations and construction joints. Unexcelled aging characteristics and flexibility.
Elastomeric Joint Seals	New economical products for sealing construction joints. Choose caulk or spray applied products tested to UL2079.

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