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# PRODUCT DATA SHEET

## Intumescent RED Wrap Strip

### 1. PRODUCT DESCRIPTION

SpecSeal® Red 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 penetrants.

When exposed to temperatures in excess of 250°F (121°C), the SpecSeal® Red Wrap Strip begins to expand (intumesce) rapidly to form a dense, highly insulative char. Its free expansion ranges from 16-24 times original (pre-expanded) volume. Expansion continues up to temperatures of 1,000°F.

### 2. APPLICATIONS

SpecSeal® Red Wrap Strips are used for firestopping combustible penetrants such as nonmetallic pipes and cables. It is also used around metal duct work to close gaps that may develop during a fire due to expansion and deflection.

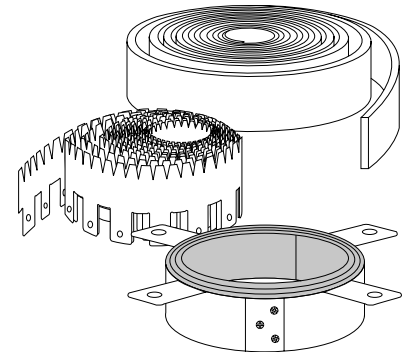
Installations have been developed for both "tuck-in" applications (where strips are fastened around the penetrant and then slid into the opening) and restraining collar assemblies (for surface mounting). For larger openings or complex penetrant configurations, systems have been developed to utilize the wrap strips in conjunction with other SpecSeal® products. SpecSeal® Red Wrap Strips are suitable for use in all common forms of construction including concrete floors, concrete over steel deck, concrete walls, concrete block walls, gypsum board walls, and wood floor assemblies.

### 3. PHYSICAL PROPERTIES

See Table A. This material is 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 Red Wrap Strips are the basis for systems that meet the exacting criteria of ASTM E814 (UL1479). Systems have been tested for all common forms of construction and penetrants with ratings up to 3 hours.



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

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

### FEATURES

- **Rapid Expansion:**  
Closes off burning penetrants faster.
- **High Volume Char:**  
Expands up to 24 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.

### 5. SPECIFICATIONS

The wrap strip material shall be a highly flexible, two-stage intumescent material. The wrap strip shall provide a minimum of 15x 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

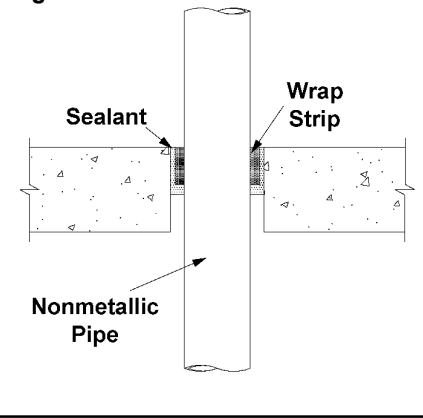
DIV.	7	07840	Through-Penetration Firestopping
DIV.	13	13900	Special Construction Fire Suppression & Supervisory Systems
DIV.	15	15250	Mechanical Insulation – Fire Protection
DIV.	16	16050	Basic Electrical Materials & Methods

**Table A: PHYSICAL PROPERTIES**

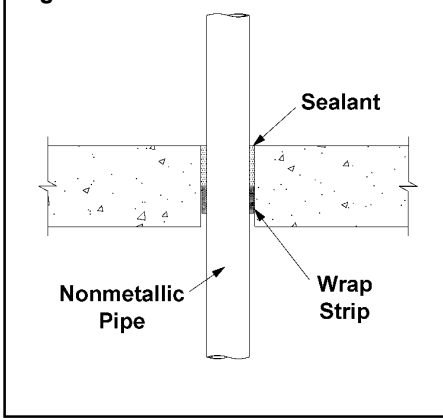
Catalog Number	SSWRED
Color	Red
Weight	2.9 Lb. (12' Roll)
Dimensions	12' x 1-1/2" x 1/4" (nom.)
Expansion Begins	250° F. (1st stage) 350° F. (2nd stage)
Volume Expansion	16 to 24X (free expansion)
In-Service Temp.	≤ 130° F.
Oven Aging	No Change (60°C)*
Humidity Exposure	No Change (60°C, 98% R.H.)*

\* Evaluation of physical properties and total expansion.

**Fig 1**



**Fig 2**



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 the UL Fire Resistance Directory as of this printing.

**5. SPECIFICATIONS**

See page 1.

**6. INSTALLATION**

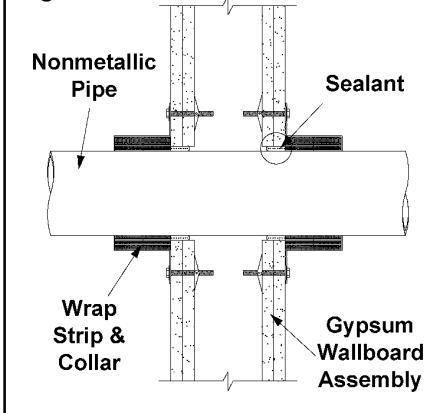
**GENERAL:** Areas to be protected must be free of oil, loose dirt, rust or scale. In most cases, walls require symmetrical applications. Wrap strips must be applied to both sides.

**SYSTEM SELECTION:** Proper methods and materials are critical to firestopping. A number of methods have been developed to suit a wide variety of firestopping applications. Some of these methods are illustrated here. System drawings more precise to a given application may be available. Additional systems may also be available for applications not shown here. Consult your local distributor, sales rep. or call STI toll free at (800)992-1180.

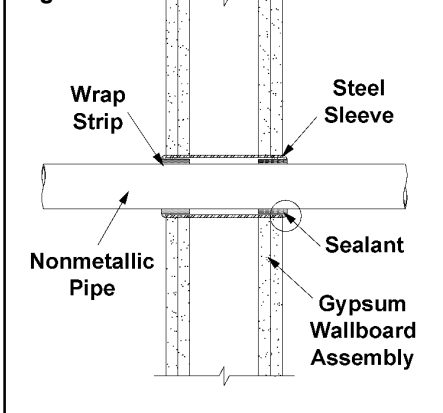
**TUCK-IN INSTALLATIONS:** Place layer of wrap strip around penetrant. Masking tape may be used to temporarily secure wrap strip. Apply successive layers of wrap strip as required by system chosen. Secure layers in place using steel tie wire or foil tape as required. Slide wrap strip into opening and position as indicated by the appropriate UL system or STI design. Apply SpecSeal® Sealant as required for smoke seal.

**POURED OR EMBEDDED INSTALLATIONS:** Where annular spaces are larger than those suitable for "tuck-in" installations, poured in or embedded installations may be a better choice. Apply wrap strip as described above. Position wrap strip as follows: In

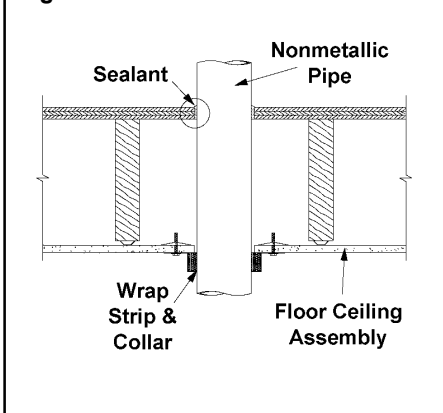
**Fig 3**



**Fig 4**



**Fig 5**



**Table B: RED WRAP STRIP AND RESTRAINING COLLAR REQUIREMENTS**

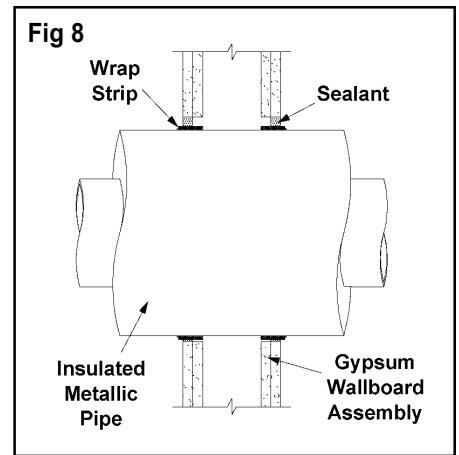
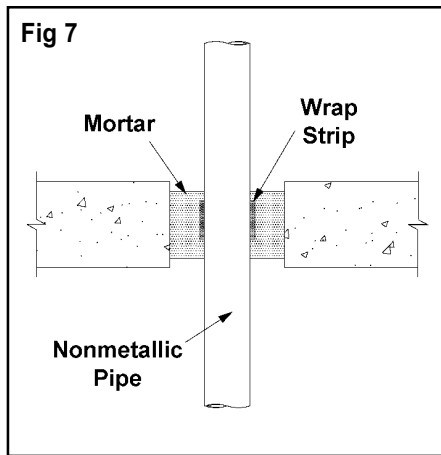
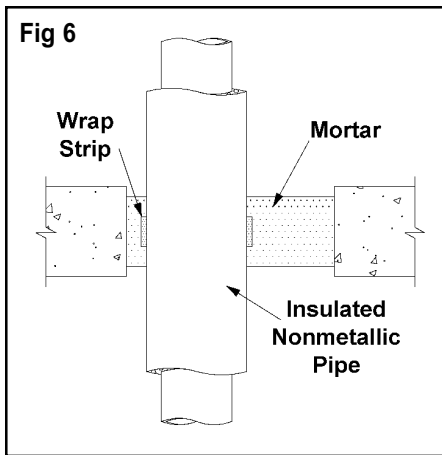
This table provides the following information related to the firestopping of plastic pipes utilizing "tuck-in" or restraining collar assemblies:

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

Trade Size    Pipe O.D.    Length of Layers & Restraining Collar (R.C.) in Inches

Trade Size	Pipe O.D.	Length of Layers & Restraining Collar (R.C.) in Inches				
		1st	2nd	3rd	TOTAL	R.C.
1/2"	0.84"	4.2			4.2	
3/4"	1.1"	5.0			5.0	
1"	1.3"	5.7			5.7	
1-1/4"	1.7"	6.9			6.9	
1-1/2"	1.9"	7.5			7.5	8.5
2"	2.4"	9.1			9.1	11.0
2-1/2"	2.9"	10.7	12.3		23.0	13.3
3"	3.5"	12.6	14.1		26.7	15.5
3-1/2"	4.0"	14.1	15.7	17.3	47.1	18.3
4"	4.5"	15.7	17.3	18.8	51.8	20.5
6"	6.62"	22.4	24.0	25.5	143.8*	26.5**

\* Requires double stack of 3 layers of wrap strip.  
\*\* Requires 3" high, 26 gauge metal (use WSC-RED).



mortar applications, position wrap strip such that they are embedded flush with the bottom surface of the mortar (outside surface in wall applications). In sealant applications, position strip into mineral wool forming and sealant such that 1" of ring is contained within forming material and 1/2" is embedded in sealant. Position and secure strip before pouring mortar or applying sealant.

**RESTRAINING COLLAR INSTALLATIONS:** Where annular spaces are restricted or where tuck-in, poured or embedded systems are unsuitable, surface mounted restraining collars may be used (See Fig. 6). Caulk annular space around pipe 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. 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. Secure restraining collars with stainless steel hose clamp positioned at the mid-point of the wrap strip stack.

Request STI's "Product Estimation & Installation Sheet - Wrap Strip Collars" for additional information concerning the use of restraining collar.

**PLASTIC PIPES:** "Tuck-In" installations are suitable for vented or closed systems up to and including 3" trade size pipes. For penetrations above 3" trade size, surface mounted collars are recommended. Figures 1, 2 and 4 illustrate "tuck-in" installations for plastic pipes through common forms of construction. Figures 11 through 14 illustrate the use of surface mounted collars. See Table B (Page 2) for number of layers, the length of the wrap strip layers and the length of the required restraining collar.

## 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.

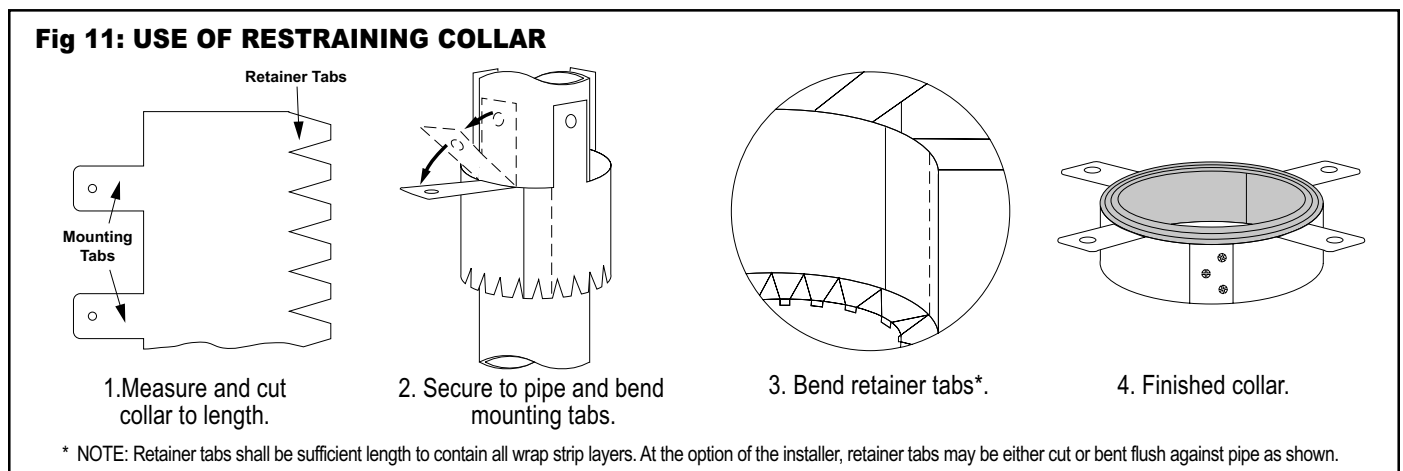
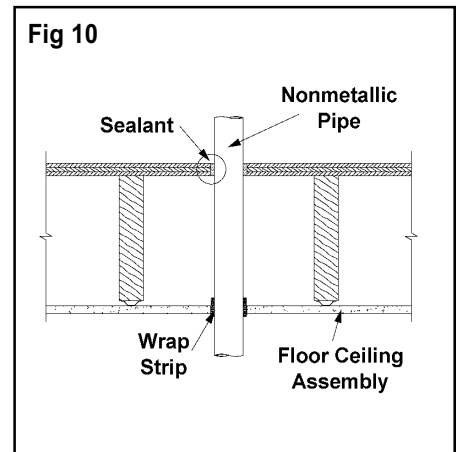
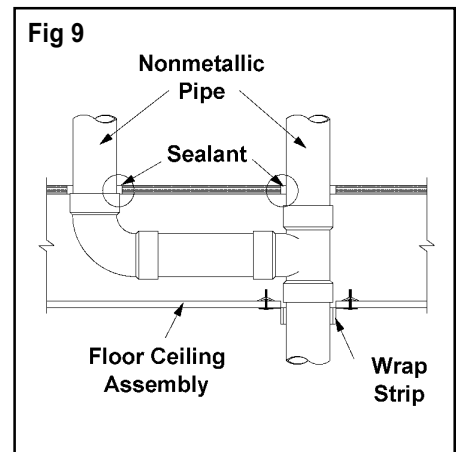


Fig 12

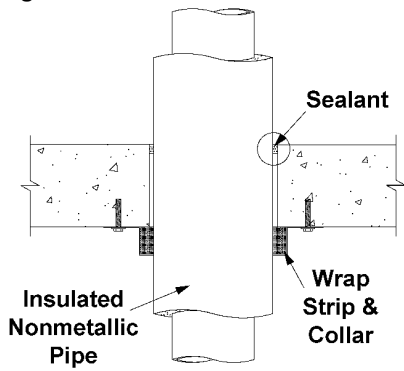


Fig 13

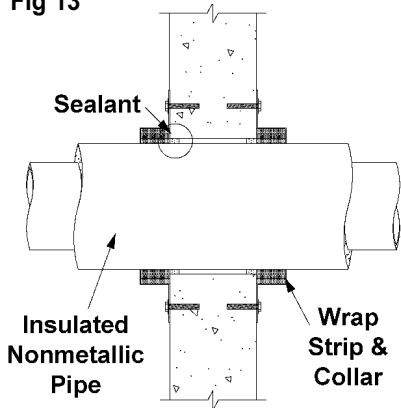
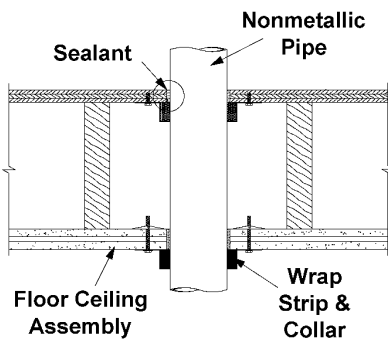


Fig 14



## 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.

## 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® Red Wrap Strips (Cat No. SSWRED) are available as a roll 1-1/2" 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. Available packages and additional SpecSeal® Products are listed in Table C.

**Table C: ORDERING INFORMATION**

Cat. No.	Name	Description
SSWRED	Wrap Strip	12' x 1-1/2" x 1/4" Intumescent Strip
SSWRC2	1-1/2" Restr. Collar	30 gauge sheet metal for ≤ 4" pipes (25' roll)
WSCRED	3" Restr. Collar	22 gauge sheet metal for 6" pipes (36" length)



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!

### 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.

## CITY OF NEW YORK MEA 130-96M

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