

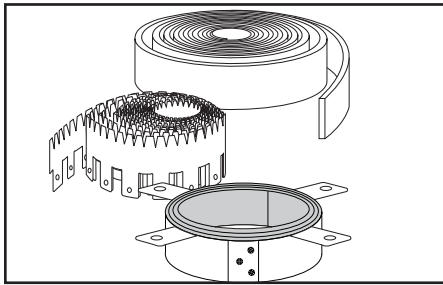


# SERIES SSW INTUMESCENT WRAP STRIPS

## APPLICATIONS

SpecSeal® Wrap Strips are used for firestopping combustible penetrants such as nonmetallic pipes or pipe insulation.

Installations were developed for both “tuck-in” applications (where strips are secured around the penetrant and slid into the opening) and restraining collar assemblies (for surface mounting). For larger openings or complex penetrant configurations, systems were developed utilizing wrap strips in conjunction with other SpecSeal® products. SpecSeal® 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/stud walls, and wood floor/ceiling assemblies.



## PRODUCT DESCRIPTION

SpecSeal® Wrap Strips are highly flexible, elastomeric strips designed to firestop combustible penetrations in fire-rated floors, floor/ceilings, and walls. Convenient 12' (3.7 m) rolls, or individually sized strips facilitate installation and minimize waste. Four grades are available to suit the product to the application.

These products utilize STI's fast responding intumescent technology, providing very responsive and highly directionalized expansion. Rapid expansion provides quick closure for burning combustible penetrants.

When exposed to temperatures in excess of 250° F (121° C), the SpecSeal® Wrap Strip begins to expand (intumesce) rapidly to form a dense, highly insulative char. Free expansion varies according to the grade utilized (See Table A). Expansion continues up to temperatures of 1,000° F (538° C).

FEATURE	BENEFIT
• <b>Rapid Expansion:</b>	Closes off burning penetrants faster.
• <b>High Volume Char:</b>	Significant expansion seals off opening!
• <b>Water-Resistant:</b>	No soluble or hygroscopic ingredients.
• <b>Economical:</b>	12' (3.2 m) rolls or precut strips means no piecing... less waste!
• <b>Highly Flexible:</b>	No foil... soft...supple...easier to install!
• <b>Versatile:</b>	Performer for a wide range of complex applications.

CLASSIFIED  
UL US  
3L73

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

SEE UL FIRE RESISTANCE DIRECTORY

FM  
APPROVED

## PERFORMANCE

SpecSeal® Wrap Strips are the basis for systems that meet the exacting criteria of ASTM E 814 (UL1479). Systems were tested for all common forms of construction and penetrants with ratings up to 3 and 4 hours (dependent upon grade of wrap strip utilized).

## 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.

TABLE A: PHYSICAL PROPERTIES										
Catalog Number	SSWBLU	SSWBLU2	SSWRD	SSWRD2	SSWBLU220	SSWBLU230	SSWBLU240	SSW125	SSW250	SSW375
Color	Blue	Blue	Red	Red	Blue	Blue	Blue	Gray	Gray	Gray
Thickness	3/16" (4.8 mm)	1/8" (3.2 mm)	1/4" (6 mm)	1/8" (3.2 mm)	1/8" (3.2 mm)	1/8" (3.2 mm)	1/8" (3.2 mm)	1/8" (3.2 mm)	1/4" (6 mm)	3/8" (10 mm)
Width	2" (51 mm)	2" (51 mm)	1-1/2" (38 mm)	1-1/2" (38 mm)	1-1/2" (38 mm)	3" (76 mm)	4" (102 mm)	1-1/2" (38 mm)	1-1/2" (38 mm)	1-1/2" (38 mm)
Length	12' (3.7 m)	12' (3.7 m)	12' (3.7 m)	12' (3.7 m)	8' (204 mm)	11-3/16" (284 mm)	14-5/8" (356 mm)	8' (204 mm)	11-3/4" (298 mm)	15-7/8" (403 mm)
Weight	3.0 lbs (1.4 kg)	0.7 lbs (0.32 kg)	1.10 lbs (0.52 kg)	1.10 lbs (0.52 kg)	0.05 lbs (0.02 kg)	0.15 lbs (0.08 kg)	0.3 lbs (0.12 kg)	0.05 lbs (0.02 kg)	0.2 lbs (0.10 kg)	0.4 lbs (0.18 kg)
Expansion System	Two-Stage	Single Stage	Two-Stage	Single Stage	Single Stage	Single Stage	Single Stage	Single Stage	Single Stage	Single Stage
Expansion Begins	250° F (121° C) 1st Stage 350° F (160° C) 2nd Stage	320° F (160° C)	250° F (121° C) 1st Stage 350° F (160° C) 2nd Stage	320° F (160° C)	320° F (160° C)	320° F (160° C)	320° F (160° C)	320° F (160° C)	320° F (160° C)	320° F (160° C)
Volume Expansion	20 to 30x	30 to 60x	16 to 24x	24 to 48x	30 to 60x	30 to 60x	30 to 60x	30 to 60x	30 to 60x	30 to 60x
In Service Temp	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)	Less than 130°F (54°C)
Storage Temp	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)	Less than 120°F (49°C)
Shelf Life	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit	No Limit
Oven Aging	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)	No Change (60°C)
Humidity Exposure	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)	No Change (60° C; 98% R.H.)
UL Accelerating Aging	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass



## SPECIFICATIONS

The wrap strip material shall be highly flexible, intumescent material. The wrap strip shall contain no water soluble expansion ingredients and provide a minimum of 16x free expansion. The intumescent wrap strip shall be faced on each side with plastic. 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 tested to the requirements of ASTM E 814 (UL1479).

### SPECIFIED DIVISIONS

- DIV. 7 — 07 84 00 — Firestopping
- DIV. 22 — 22 07 00 — Plumbing Insulation
- DIV. 22 — 22 00 00 — Plumbing
- DIV. 23 — 23 07 00 — HVAC Insulation

## INSTALLATION INSTRUCTIONS

**GENERAL:** Areas to be protected must be free of oil, loose dirt, rust, or scale. In most cases, walls require symmetrical applications and wrap strips must be applied to both sides. Wrap strips may be continuously wrapped or installed individually around the penetrant. When layers are installed individually, butted ends in successive layers may be aligned or offset. When selecting a wrap strip grade, refer to TABLE B below.

TABLE B: WRAP STRIP GRADES				
	SSWRED	SSWRED2	SSWBLU	SSWBLU2
Max. Plastic Pipe Size	6" (152 mm)	6" (152 mm)	12" (305 mm)	12" (305 mm)

**SYSTEM SELECTION:** A variety of methods have been developed and UL Classified using SpecSeal® Wrap Strips. Visit the Technical Library at [www.stifirestop.com](http://www.stifirestop.com) to locate precise system installation drawings.

**TUCK-IN INSTALLATIONS:** Encircle penetrant with wrap strip. Masking tape may be used to temporarily secure wrap strip. Secure wrap strip layers in place using steel tie wire or foil tape as required. Slide wrap strip into opening and position dictated by individual UL System or STI design. Apply SpecSeal® Sealant as required for smoke seal.

**RESTRAINING COLLAR INSTALLATIONS:** When surface mounted restraining collar systems are used, start by installing SpecSeal® Sealant into annular space as a smoke seal. Although not always required by the UL System, sealing both sides of walls and floors is a recommended practice. Encircle penetrant with wrap strip layers. Temporarily secure layers using masking tape or steel wire. Calculate the length of restraining collar required to completely wrap around the outer diameter of the wrap strip layers plus an additional 1" (25 mm) overlap. Secure restraining collars with stainless steel hose clamp positioned at the mid-point of the collar or symmetrically located steel screws as specified within the UL System. Refer to TABLE C below to select appropriate restraining collar.

TABLE C: APPROPRIATE RESTRAINING COLLAR TYPES				
	SSWRED	SSWRED2	SSWBLU	SSWBLU2
SSWRC			X	X
SSWRC2	X	X		
WSC-8*			X	X
WSC-8RED**	X	X		
WSC-12***			X	X
<small>SSWRC and SSWRC2 sold in 25' (7.6 m) rolls and may be cut to length as required            *Single collar for 6" (152 mm) and 8" (204 mm) pipe only            **Single collar for 6" (152 mm) pipe only            ***Single collar for 10" (254 mm) and 12" (305 mm) pipe only</small>				

For more information, refer to STI's "Product Estimation and Installation Sheet – Wrap Strip Collars" concerning the use of restraining collar.

**POURED OR EMBEDDED INSTALLATIONS:** Where excessive annular space exists, poured or embedded installations provide an economical method of sealing large openings. Encircle penetrants with appropriate number of wrap strip layers securing wrap strip layers with steel tie wire or foil tape as required. In floors, locate the bottom edge of wrap strip at the position specified in the UL System. In walls, locate the exposed edge of wrap strip at the position specified in the UL System. After wrap strips are secured and positioned, back fill openings with SpecSeal® Firestop Mortar or Sealant as required.

These tables provide the 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 collar metal (with 1" (25 mm) min. added for overlap).

SSWRED WRAP STRIP AND RESTRAINING COLLAR REQUIREMENTS						
Trade Size	Pipe OD	Length of Layers & Restraining Collar (RC) In Inches*				
		1st	2nd	3rd	Total	RC
1.5	1.9	7.5			7.5	8.7
2.0	2.4	9.1			9.1	10.3
2.5	2.9	10.7	12.3		22.9	13.6
3.0	3.5	12.6	14.1		26.7	15.5
3.5	4.0	14.1	15.7	17.3	47.1	18.7
4.0	4.5	15.7	17.3	18.8	51.8	20.3
6.0	6.63	22.4	24.0	25.5	143.7 <sup>1</sup>	27.2 <sup>2</sup>

<sup>1</sup>Requires double stack of 3 layers of wrap strip

<sup>2</sup>Requires WSC8RED restraining collar for 6 in. trade size pipe

SSWBLU WRAP STRIP AND RESTRAINING COLLAR REQUIREMENTS								
Trade Size	Pipe OD	Length of Layers & Restraining Collar (RC) In Inches*						
		1st	2nd	3rd	4th	5th	Total	RC
1.5	1.9	7.1					7.1	8.3
2.0	2.4	8.7					8.7	9.9
2.5	2.9	10.3	11.5				21.8	12.8
3.0	3.5	12.2	13.4				25.5	14.7
3.5	4.0	13.7	14.9	16.1			44.8	17.5
4.0	4.5	15.3	16.5	17.7			49.5	19.1
6.0	6.63	22.0	23.2	24.3			139.0 <sup>1</sup>	26.0 <sup>1</sup>
8.0	8.63	28.3	29.5	30.6	31.8		240.3 <sup>2</sup>	32.8 <sup>2</sup>
10.0	10.75	35.0	36.1	37.3	38.5		367.2 <sup>3</sup>	39.6 <sup>3</sup>
12.0	12.75	41.2	42.4	43.6	44.8	45.9	544.9 <sup>4</sup>	47.3 <sup>4</sup>

<sup>1</sup>Requires two stacks of 3 layers of wrap strip and WSC8 restraining collar. <sup>2</sup>Requires two stacks of 4 layers of wrap strip and WSC8 restraining collar.

<sup>3</sup>Requires 2-1/2 stacks of 4 layers of wrap strip and WSC12 restraining collar.

<sup>4</sup>Requires 2-1/2 stacks of 5 layers of wrap strip and WSC12 restraining collar.

SSWRED2 and SSWBLU2 WRAP STRIP AND RESTRAINING COLLAR REQUIREMENTS								
Trade Size	Pipe OD	Length of Layers & Restraining Collar (RC) In Inches*						
		1st	2nd	3rd	4th	5th	Total	RC
1.5	1.9	6.8					6.8	7.9
2.0	2.4	8.3					8.3	9.5
2.5	2.9	9.9	10.7				20.6	11.9
3.0	3.5	11.8	12.6				24.3	13.9
3.5	4.0	13.4	14.1	14.9			42.4	16.3
4.0	4.5	14.9	15.7	16.5			47.1	17.9
6.0	6.63	21.6	22.4	23.2			134.3 <sup>1</sup>	24.7 <sup>1</sup>
8.0	8.63	27.9	28.7	29.5	30.2		232.5 <sup>2</sup>	31.2 <sup>2</sup>
10.0	10.75	34.6	35.3	36.1	36.9		357.4 <sup>3</sup>	38.0 <sup>3</sup>
12.0	12.75	40.8	41.6	42.4	43.2	44.0	530.1 <sup>4</sup>	45.3 <sup>4</sup>

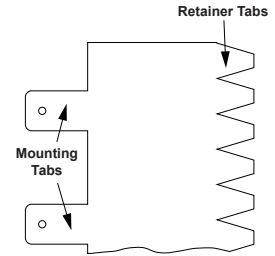
<sup>1</sup>Requires two stacks of 3 layers of wrap strip and WSC8 restraining collar. <sup>2</sup>Requires two stacks of 4 layers of wrap strip and WSC8 restraining collar.

<sup>3</sup>Requires 2-1/2 stacks of 4 layers of wrap strip and WSC8RED or WSC12 restraining collar.

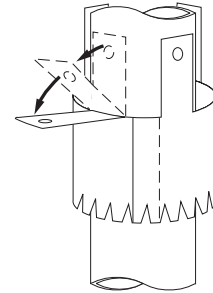
<sup>4</sup>Requires 2-1/2 stacks of 5 layers of wrap strip and WSC12 restraining collar.

\* Metric dimensions available online at [www.stifirestop.com](http://www.stifirestop.com).

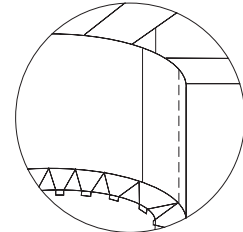
## RESTRAINING COLLAR INSTALLATION



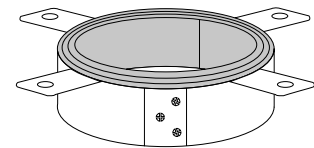
1. Temporarily secure wrap strips to pipe with masking tape. Measure and cut collar to length, providing a 1" (25 mm) overlap.



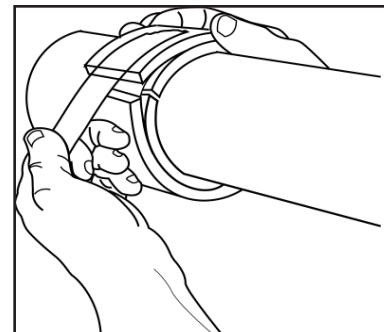
2. Bend mounting tabs 90° away from collar. Tightly secure to pipe or conduit with three #8 sheet metal screws or one stainless steel hose clamp.



3. Bend retainer tabs 90° toward pipe or conduit. Tabs may be bent flush against pipe or trimmed to a length sufficient to contain all wrap strip layers.



4. Slide collar against floor or wall and secure with appropriate steel fasteners and fender washers



## MAINTENANCE

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

## TECHNICAL SERVICE

Specified Technologies, Inc. provides toll free technical support to assist in product selection and installation design. Log onto the Technical Library at [www.stifirestop.com](http://www.stifirestop.com) or call the STI Technical Service Department to obtain UL System drawings, MSDSs, or other technical information.

## 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.

## AVAILABILITY

SpecSeal® Wrap Strips are available from authorized distributors. Consult factory for the names and locations of the nearest sales representatives or distributors.

CATALOG NUMBER	DESCRIPTION
<b>RED &amp; RED2 Wrap Strip &amp; Accessories</b>	
SSWRED	12' x 1-1/2" x 1/4" (3.7 m x 38 mm x 6 mm) Intumescent Wrap Strip
SSWRED2	12' x 1-1/2" x 1/8" (3.7 m x 38 mm x 3 mm) Intumescent Wrap Strip
SSWRC2	30 Gauge sheet metal restraining collar for ≤4" (102 mm) pipes (25' (7.6 m) roll)
WSC-8RED	Preformed restraining collar for 6" (152 mm) pipe
<b>BLU &amp; BLU2 Wrap Strip &amp; Accessories</b>	
SSWBLU	12' x 2" x 3/16" (3.7 m x 51 mm x 5 mm) Intumescent Wrap Strip
SSWBLU2	12' x 2" x 1/8" (3.7 m x 51 mm x 3 mm) Intumescent Wrap Strip
SSWRC	30 Gauge sheet metal restraining collar for ≤4" (102 mm) pipes (25' (7.6 m) roll)
WSC-8	Preformed restraining collar for 6" (152 mm) and 8" (204 mm) pipe
WSC-12	Preformed restraining collar for 10" (254 mm) and 12" (305 mm) pipe
<b>Precut Wrap Strips</b>	
SSW125	1-1/2" (38 mm) x 1/8" (3 mm) strip sized for 2" (51 mm) trade size pipe
SSW250	1-1/2" (38 mm) x 1/4" (6 mm) strip sized for 3" (76 mm) trade size pipe
SSW375	1-1/2" (38 mm) x 3/8" (10 mm) strip sized for 4" (102 mm) trade size pipe
SSWBLU220	Precut strip sized for 2" (51 mm) trade size pipe
SSWBLU230	Precut strip sized for 3" (76 mm) trade size pipe
SSWBLU240	Precut strip sized for 4" (102 mm) trade size pipe

### CITY OF NEW YORK MEA 130-96 M & MEA 212-01-M

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.

#### WARRANTY

Specified Technologies Inc. manufactures its goods in a manner to be free of defects. Should any defect occur in its goods (within one year), Specified Technologies Inc., upon prompt notification, will at its option, exchange or repair the goods or refund the purchase price.

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