FLAMESAFE® FS 900+ SEALANT
Elastomeric firestop

RECTORSEAL

Product Features

- Underwriters Laboratories classified

- Factory Mutual approved

- Firestop systems listed for through-penetration and joint systems

- Listed in systems with up to 4 hour fire rating

- Tested to UL 1479 (ASTM E814), UL 2079 (ASTM E1966 and E1399), UL 723 (ASTM E84)

- Sound transmission tested in accordance with ASTM E90

- Water-based, easy to use and clean up

- Excellent adhesion to a variety of substrates and penetrants

- No solvents, silicones or outgassing

- Elastomeric

- Easy to apply

- Self-leveling grades

Description

FlameSafe® FS 900+ Sealant is cost-effective, water-based and cures to form a flexible shield against the spread of fire and smoke. It is available in two grades: caulkable/trowelable (CG) and self-leveling (SL).

FS 900+ does not contain solvents and, as a result, is not toxic and will not damage plastic pipes or cable jackets.

FS 900+ can be used in various penetrations and construction/architectural joint configurations. Examples of listed systems include metallic and non-metallic pipes, cable and HVAC penetrations, concrete floor-to-floor, floor-to-wall and wall-to-wall applications, as well as for concrete, CMU and gypsum head of wall applications requiring dynamic joint movement. FS 900+ is a versatile, yet economical solution for a wide range of through-penetration and joint construction conditions.

FlameSafe FS 900+ Sealant

Physical Properties

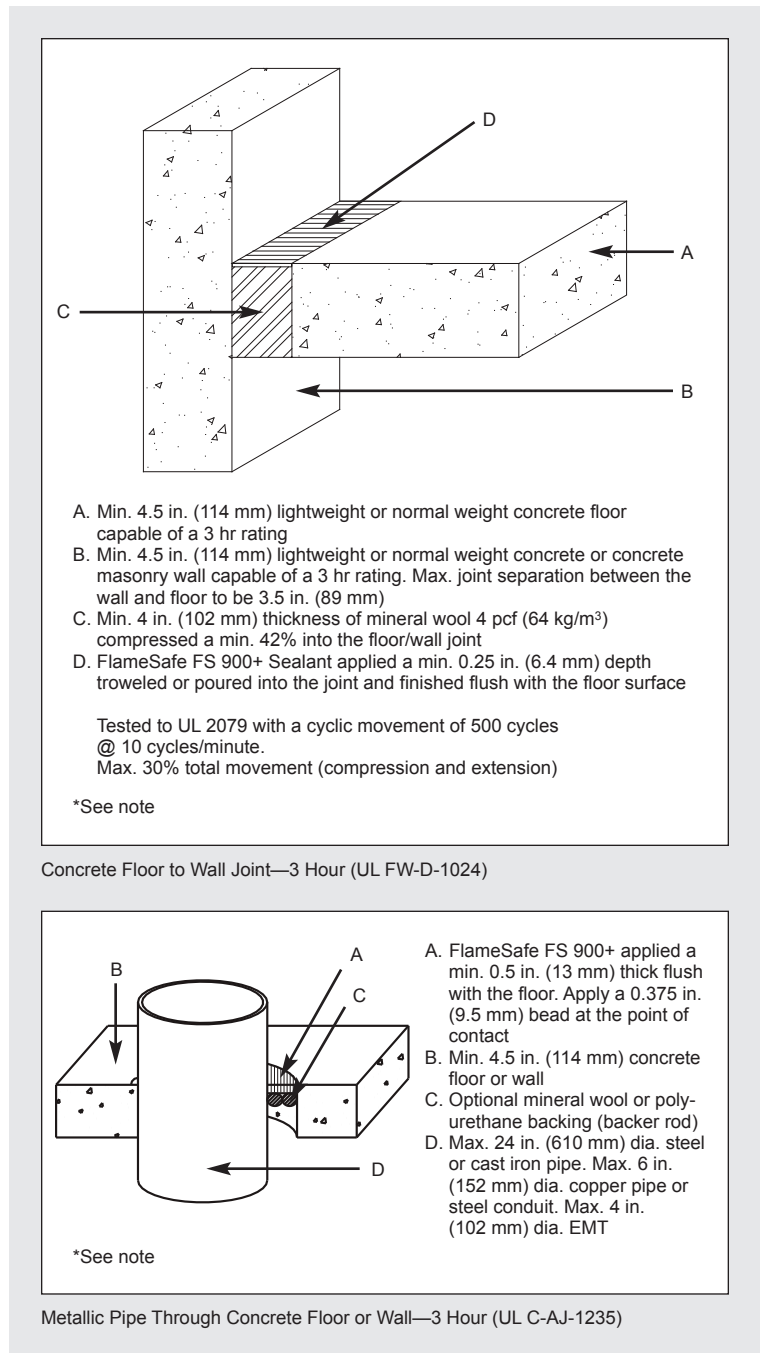| Color	Red or gray
Weight	10.75 lbs/gal (1.3 kg/L)
Storage and installation temperatures	40°F to 90°F (4°C to 32°C)
Flame spread (UL 723/ASTM E84)	0
Smoke developed (UL 723/ASTM E84)	0

Application Guide

Penetrations	
Metallic	X
Non-metallic	X
Cables	X
Cable trays	
Insulated	X
Misc. electrical	X
HVAC	X
Mixed	X
Joints	**X**
Perimeter Barrier (Curtain Wall)	

Applicable Standards

FlameSafe FS 900+ is listed by Underwriters Laboratories Inc. and by Underwriters' Laboratories of Canada for 1, 2, 3 and 4 hour rated systems, in accordance with ASTM E814 (UL 1479/CAN 4-2115M), *Fire Tests of Through-Penetration Firestops* and UL 2079, *Standard for Fire Tests of Joint Systems*. FS 900+ is Factory Mutual approved and approved by the City of New York (MEA 41-00-M, Vol. II).

Installation

All contact surfaces must be free of loose dirt, scale, oil or other foreign material. Installation of material may vary according to the size of the opening being protected and the type of penetrant. Installation temperature should be between 40°F to 90°F (4°C to 32°C). Material may be installed using a standard caulk gun or troweled into place using a mason's trowel or putty knife. The self-leveling grade can be poured into the opening, then troweled to a smooth finish. FlameSafe FS 900+ dries quickly and in such a way that it can be painted and finished like the surrounding wall or floor.

A. Min. 4.5 in. (114 mm) lightweight or normal weight concrete floor capable of a 3 hr rating
B. Min. 4.5 in. (114 mm) lightweight or normal weight concrete or concrete masonry wall capable of a 3 hr rating. Max. joint separation between the wall and floor to be 3.5 in. (89 mm)
C. Min. 4 in. (102 mm) thickness of mineral wool 4 pcf (64 kg/m³) compressed a min. 42% into the floor/wall joint
D. FlameSafe FS 900+ Sealant applied a min. 0.25 in. (6.4 mm) depth troweled or poured into the joint and finished flush with the floor surface

Tested to UL 2079 with a cyclic movement of 500 cycles @ 10 cycles/minute.
Max. 30% total movement (compression and extension)

*See note

Concrete Floor to Wall Joint—3 Hour (UL FW-D-1024)

A. FlameSafe FS 900+ applied a min. 0.5 in. (13 mm) thick flush with the floor. Apply a 0.375 in. (9.5 mm) bead at the point of contact
B. Min. 4.5 in. (114 mm) concrete floor or wall
C. Optional mineral wool or polyurethane backing (backer rod)
D. Max. 24 in. (610 mm) dia. steel or cast iron pipe. Max. 6 in. (152 mm) dia. copper pipe or steel conduit. Max. 4 in. (102 mm) dia. EMT

*See note

Metallic Pipe Through Concrete Floor or Wall—3 Hour (UL C-AJ-1235)

*Refer to UL designs for full system description.

Maintenance

Applications using FlameSafe FS 900+ are maintenance free, however, installations should be inspected periodically for accidental damage and repaired as per the original approved design.

Warranty

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable. However, since the conditions of use and application are beyond our control, RectorSeal shall not be liable for any damage, direct or consequential, resulting from the use of this material or design.RectorSeal's only warranty shall be to replace any of its products found to be defective.

Technical Support

RectorSeal provides technical support for all of its products, including FlameSafe FS 900+ Sealant. Call toll free at 800-231-3345 for assistance in product selection and for detailed specifications and approvals. We provide engineering analysis for unique firestopping applications, including system design drawings suitable for submittals. Material Safety Data Sheets are also available. More information is available on our web site at http://flamesafe.rectorseal.com.

Product Estimating Guide for Through-Penetrations

(Volume in cubic inches assuming 0.5 inch required depth)

PIPE	SIZE	Size of Round Opening (Inches)																			
Pipe O.D.	Trade Size	1	2	3	4	5	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0.54	¼	0.3	1.5	3.4	6.2																
0.68	⅜	0.2	1.4	3.6	6.1																
0.84	½	0.1	1.3	3.3	6.0																
1.05	¾		1.1	3.1	5.8																
1.32	1		0.9	2.8	5.6	9.1															
1.66	1¼		0.5	2.5	5.2	8.7															
1.90	1½		0.2	2.1	4.9	8.4															
2.38	2			1.3	4.1	7.6	11.9														
2.88	2½			0.3	3.0	6.6	10.9														
3.50	3				1.5	5.0	9.3	14.4	20.3	27.0											
4.00	3½					3.5	7.9	13.0	18.8	25.5											
4.50	4					1.9	6.2	11.3	17.2	23.9	31.3	39.6	48.6								
5.56	5						2.0	7.1	13.0	19.7	27.1	35.6	44.4								
6.63	6							2.0	7.9	14.5	22.0	30.2	39.3	49.1	59.7	71.1					
8.63	8								2.6	10.0	18.3	27.3	37.1	47.7	59.1						
10.75	10											2.1	11.2	21.0	31.6	43.0	51.1	68.1	81.8		
12.75	12													2.5	13.1	24.5	36.7	49.6	63.4		
14.00	14															11.4	23.5	36.5	50.2	64.8	80.1
16.00	16																	12.9	26.7	41.2	56.5
18.00	18																			14.5	29.8

http://flamesafe.rectorseal.com

For technical assistance call toll free at 800-231-3345

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This product may be covered by patents or patents pending.
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