



# MM<sup>®</sup> Pyro-Flex FR Foam Series

## Fire Rated Foam Seal Expansion Joint Systems

SPECIFIC DATA  
 MM Systems Corporation • 50 MM Way, Pendergrass, GA 30567 • 800.241.3460 • www.mm-usa.com

### DESCRIPTION

Pyro-Flex Fire Rated Foam Seals are engineered as a fire resistive system for sealing horizontal and vertical expansion joint openings. Any type of sealant can be factory applied to the MM Systems fire rated foam block. When combined with a high-performance bellows style silicone face seal, a monolithic 2 or 3 hour fire rated and waterproof sealing system is created. Pick resistant and chemical resistant versions are also available. System is UV stable, sound attenuating, flame resistant, chemical resistant, and thermal insulating.

### BASIC USE

Pyro-Flex Fire Rated Foam Seals are designed for sealing any expansion joint that measures 1/2" (12mm) or larger. The outstanding physical properties allows for a fire rated watertight seal in a wide variety of architectural and structural applications – concrete, brick, block, EFIS, window-walls, metal panels and the like.

### FEATURES

- ± 50% movement capability.
- Does not rely on the silicone surface seal or intumescent bellows to provide fire rating.
- Epoxy sidewall adhesive used on horizontal floor applications eliminates the need for fasteners.
- Conforms to irregular structural openings.
- Waterproof silicone face seal offers a wide range of aesthetic color options.
- Can be installed with either side exposed when each side receives the silicone face seal.
- Provides interior air, vapor, dust, acoustical, thermal, and ASTM E90 sound transfer control.
- Resistant to UV, ozone, acid rain, wind driven rain and extreme temperatures.

### PERFORMANCE STANDARDS

- UL 2079                      ASTM E547
- ASTM E-119                ASTM E-283
- ASTM E-1966              ASTM E-330
- ASTM E- 1399             ASTM E-331

### CODE COMPLIANCE

- UBC, SBC, BOCA
- International Building Code



### PACKAGING

Pyro-Flex Fire Rated Foam Series Expansion Joints are supplied in 6.5 foot (2 meter) lengths.

Face Sealant & Splice Sealants (when required) are packaged in 20 fl.oz. (592 ml) sausages or 10.3 fl.oz. (305-ml) cartridges.

### STORAGE

All materials should be stored off the ground in a cool, dry location 70-80°F (20-27°C) for a minimum of 24 hours prior to installation regardless of the temperature at installation location.

### PRECAUTIONS

Use with adequate ventilation. Uncured sealant may cause skin and eye irritation. In case of eye contact, immediately flush with water. Avoid prolonged or repeated skin contact. Read and follow labels and Material Safety Data Sheet before use.

### COLOR OPTIONS

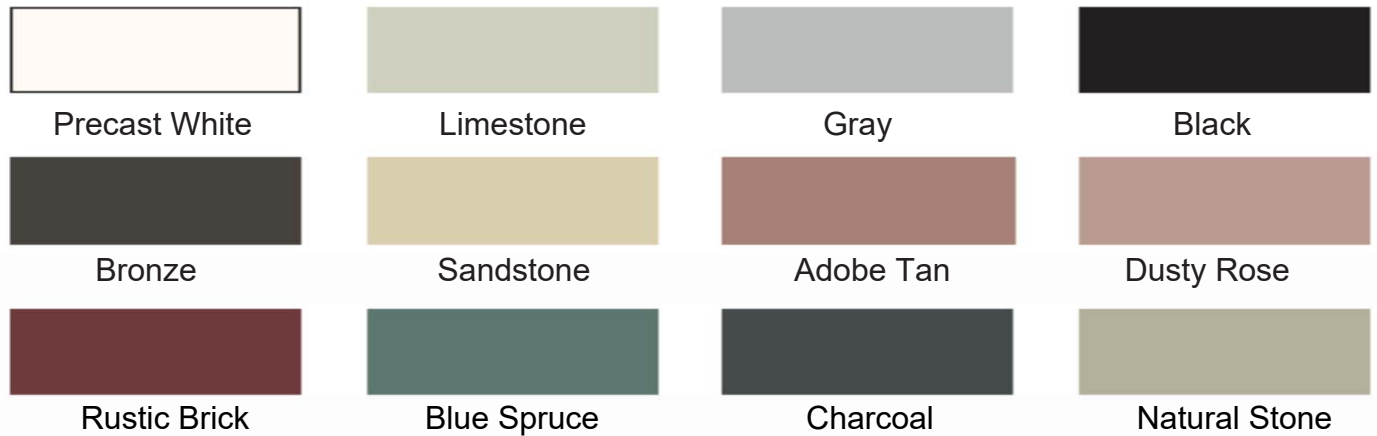
See Page 2 to select from available standard colors or select custom color matching.

# MM<sup>®</sup> Pyro-Flex FR Foam Color Chart

## PECORA<sup>®</sup> 890NST SILICONE COLORS



## DOW CORNING<sup>®</sup> 790 SILICONE COLORS



### SILICONE COLORS

Pyro-Flex (Fire Rated Foam) colors are manufactured with either Pecora 890NST or Dow Corning 790 silicone sealant that resists deterioration due to:

- Ultra Violet Rays
- Ozone
- Acid Rain
- Extreme Temperatures

### STANDARD COLORS

Pyro-Flex (Fire Rated Foam) standard color compounds are stocked and ready for manufacturing and delivery within two weeks of order placement. Lead times may vary.

### CUSTOM COLORS

Pyro-Flex (Fire Rated Foam) custom color compounds require additional manufacturing lead-time. Contact MM for availability and quantity minimums. Lead times may vary – contact MM for promise dates.

### COLOR MATCHING

Color Matching is available with certain restrictions. Minimum quantities may be required. Contact MM Systems for additional information.

### COLOR CHART

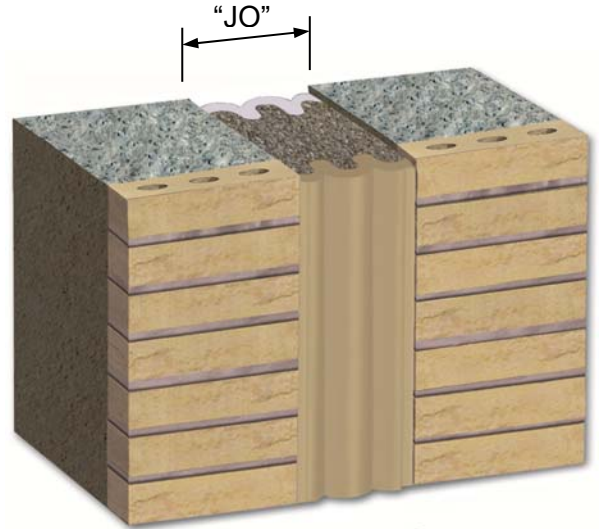
Color samples are as close as possible but actual product may vary slightly. For best results, submit color samples or swatches to our lab for color testing and matching.



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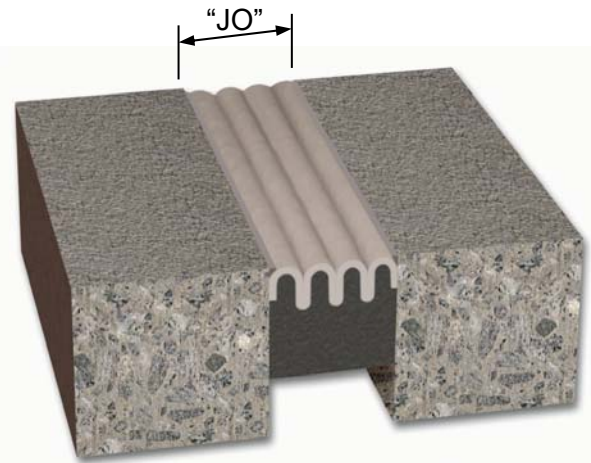
## SIF-FR SERIES SELECTION GUIDE (+/- 50% Movement)

Model Number	Total Movement		Joint Opening "JO"				Seal Depth "B"			
			Minimum	Nominal	Maximum					
SIF-FR-050-2	<b>0.50</b>	13	<b>0.250</b>	6	<b>0.50</b>	13	<b>0.75</b>	19	<b>4.00</b>	102
SIF-FR-063-2	<b>0.63</b>	16	<b>0.312</b>	8	<b>0.63</b>	16	<b>0.9375</b>	24	<b>4.00</b>	102
SIF-FR-075-2	<b>0.75</b>	19	<b>0.375</b>	10	<b>0.75</b>	19	<b>1.125</b>	29	<b>4.00</b>	102
SIF-FR-100-2	<b>1.00</b>	25	<b>0.500</b>	25	<b>1.00</b>	25	<b>1.500</b>	38	<b>4.00</b>	102
SIF-FR-125-2	<b>1.25</b>	32	<b>0.625</b>	16	<b>1.25</b>	32	<b>1.875</b>	48	<b>4.00</b>	102
SIF-FR-150-2	<b>1.50</b>	38	<b>0.750</b>	19	<b>1.50</b>	38	<b>2.250</b>	57	<b>4.00</b>	102
SIF-FR-175-2	<b>1.75</b>	44	<b>0.875</b>	22	<b>1.75</b>	44	<b>2.625</b>	67	<b>4.00</b>	102
SIF-FR-200-2	<b>2.00</b>	51	<b>1.000</b>	25	<b>2.00</b>	51	<b>3.00</b>	76	<b>4.00</b>	102
SIF-FR-225-2	<b>2.25</b>	57	<b>1.125</b>	28	<b>2.25</b>	57	<b>3.375</b>	86	<b>4.00</b>	102
SIF-FR-250-2	<b>2.50</b>	64	<b>1.250</b>	32	<b>2.50</b>	64	<b>3.750</b>	95	<b>4.00</b>	102
SIF-FR-275-2	<b>2.78</b>	70	<b>1.375</b>	35	<b>2.75</b>	70	<b>4.125</b>	105	<b>4.00</b>	102
SIF-FR-300-2	<b>3.00</b>	76	<b>1.500</b>	38	<b>3.00</b>	76	<b>4.500</b>	114	<b>4.00</b>	102
SIF-FR-325-2	<b>3.25</b>	83	<b>1.562</b>	41	<b>3.25</b>	83	<b>4.812</b>	122	<b>4.00</b>	102
SIF-FR-350-2	<b>3.50</b>	89	<b>1.750</b>	44	<b>3.50</b>	89	<b>5.250</b>	133	<b>4.00</b>	102
SIF-FR-375-2	<b>3.75</b>	95	<b>1.875</b>	48	<b>3.75</b>	95	<b>5.625</b>	143	<b>4.00</b>	102
SIF-FR-400-2	<b>4.00</b>	102	<b>2.00</b>	51	<b>4.00</b>	102	<b>6.00</b>	152	<b>4.00</b>	102
SIF-FR-425-2	<b>4.25</b>	108	<b>2.125</b>	54	<b>4.25</b>	108	<b>6.375</b>	162	<b>4.00</b>	102
SIF-FR-450-2	<b>4.50</b>	114	<b>2.25</b>	58	<b>4.50</b>	114	<b>6.75</b>	172	<b>4.00</b>	102



### SIF-FR Vertical Series

- 2 & 3 hour rated / UL-2079
- optional backside silicone available
- vertical wall applications
- +/- 50% expansion & contraction



### EIS-FR Horizontal Series

- 2 & 3 hour rated / UL-2079
- horizontal floor applications
- +/- 50% expansion & contraction
- Cover plates recommended for joints wider than 4-inches

### Pyro-Blok PBN-FR Series

- 2 & 3 hour rated / UL-2079
- foam only (no silicone face sealant)
- wall & floor applications
- +/- 50% expansion & contraction
- used behind or under expansion joints

## EIS-FR SERIES SELECTION GUIDE (+/- 50% Movement)

Model Number	Total Movement		Joint Opening "A"				Seal Depth "B"			
			Minimum	Nominal	Maximum					
EIS-FR-050-2	<b>0.50</b>	13	<b>0.250</b>	6	<b>0.50</b>	13	<b>0.75</b>	19	<b>4.00</b>	102
EIS-FR-063-2	<b>0.63</b>	16	<b>0.312</b>	8	<b>0.63</b>	16	<b>0.9375</b>	24	<b>4.00</b>	102
EIS-FR-075-2	<b>0.75</b>	19	<b>0.375</b>	10	<b>0.75</b>	19	<b>1.125</b>	29	<b>4.00</b>	102
EIS-FR-100-2	<b>1.00</b>	25	<b>0.500</b>	25	<b>1.00</b>	25	<b>1.500</b>	38	<b>4.00</b>	102
EIS-FR-125-2	<b>1.25</b>	32	<b>0.625</b>	16	<b>1.25</b>	32	<b>1.875</b>	48	<b>4.00</b>	102
EIS-FR-150-2	<b>1.50</b>	38	<b>0.750</b>	19	<b>1.50</b>	38	<b>2.250</b>	57	<b>4.00</b>	102
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EIS-FR-275-2	<b>2.78</b>	70	<b>1.375</b>	35	<b>2.75</b>	70	<b>4.125</b>	105	<b>4.00</b>	102
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Dimensions shown in inches (bold) and millimeters. Contact MM Systems for other sizes. Model numbers shown are for 2-hour ratings. For 3-hour ratings use -3 after model number.



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## TESTING & LISTING CREDENTIALS

Fire Barriers are a life-safety component of a structure. National and local codes have changed substantially in recent years. Fire-rated assemblies are a combination of the fire-rated expansion joint in conjunction with the adjacent construction. Use of this fire rated expansion joint in a wall or floor assembly construction other than what is depicted in the specified listing will not lower the resistance of the wall rating but is done so at the designers' discretion and responsibility for designing substrates as part of a fire rated assembly that meet applicable fire codes. Authorities having jurisdiction should be consulted in all cases as to necessary requirements. Fire barrier endurance ratings are specified in hourly increments of one to four hours. MM Systems has been a participant in code development on various governing bodies for more than 25 years which is why we welcome the opportunity to assist you with your project.

## TESTING COMPLIANCE

- 1) Listed by an accredited third-party witnessing agency to provide the required endurance rating, minimize the passage of smoke and accommodate dynamic movement without stress or degradation to its components.
- 2) Tested in accordance with International Building Code Section 712.3.
- 3) Tested in accordance UL 2079 meeting requirements of with ASTM E1966, ASTM E119, and ASTM E1399.
- 4) Complies with ASTM E1399 cycling requirements.
- 5) Tested at maximum listed expansion joint opening.
- 6) Tested full length incorporating splice transitions.
- 7) Tested with positive pressure.
- 8) Minimizes passage of smoke.

## INSTALLATION

- 1) Repair all unsound substrates. Joint opening sidewall interface areas must be clean and dry prior to installation.
- 2) Installation temperature must be 40°F and rising.
- 3) Lay out the FR Foam Seal next to the joint opening to check for appropriate length and width.
- 4) FR Foam Seal supplied will have a relaxed seal with greater than the maximum anticipated joint opening.
- 5) Apply a thin layer of the two-component epoxy adhesive to the sides of the seal and to the sidewalls of the structural expansion joint opening (all floors and walls openings wider than 4-inches).
- 6) SPLICES - The ends will be compressed and butt spliced together. Apply intumescent sealant across splice area. Apply silicone across the face seal as necessary.
- 7) Compress and position seal according to dimensional guidelines.
- 8) Do not twist or stretch the FR Foam Seal during installation.
- 9) Apply silicone edge sealant if irregular openings exist for waterproofing protection.
- 10) Refer to FR Foam Seal Installation Guideline for detailed step-by-step instructions.

## LIMITED WARRANTY

MM Systems warrants the Pyro-Flex Fire Rated Foam Systems to be free of defects in material and conform to technical data listed. We make no warranty as to color or appearance. Since methods of application can affect performance and on site conditions are beyond our control, MM Systems makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MM Systems sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of system proved to be defective. In no event shall MM Systems be liable for any special, incidental, consequential, loss of profits or punitive damages. Other warranties may be available when installed by a MM Systems Certified Contractor.

*MM Systems reserves the right to amend or withdraw information contained herein, without notice, and will not be liable for any inaccuracy or ambiguity of said information.*

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