EMSEAL PRODUCT CATALOG

Watertight / Fire Rated / Sound Dampening
Energy Efficient / Seismic / Trafficable

Structural and Architectural Expansion Joint and Sealant Products
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Structural & Architectural Expansion Joint & Preformed Sealant Products

The EMSEAL® Solution
EMSEAL® contributes to the preservation, durability and sustainability of the built environment.

We do so by delivering high value, lowest total cost of ownership, structural expansion joints and precompressed sealants that work.

Innovation has driven breakthrough new materials that ensure continuity-of-seal against water, fire, heat, cold, air movement, and sound in single product, single installation solutions.

We are a team of highly trained, motivated, and personable customer and technical service professionals.

We deliver ready-to-go as well as custom solutions to structural expansion joint and other sealing applications.

Our products are the result of market-driven innovation and decades of experience born of total dedication to the field of expansion joint sealing and component gasketing.

EMSEAL's track record of successfully completed projects is equally attributable to its approach to expansion joint treatment. Anybody can make an expansion joint appear watertight in cross-section. However, joints leak at changes in plane, direction and where dissimilar joint materials meet.

Successful projects with expansion joints that don't leak are characterized by a collaborative commitment by the A/E team, the general contractor, the joint manufacturer, and the waterproofing sub-contractor to detail, construct, fabricate, and install three-dimensional solutions. EMSEAL uniquely facilitates this process through a needs analysis and communication process that anticipates and addresses problems before they literally become cast in concrete. This collaborative approach has resulted in the successful execution of watertight expansion joints on new and retrofit projects on structures of every type. Owners, architects, engineers, general contractors, EMSEAL, and like-minded waterproofing subcontractors are proving this approach possible and practical.

Applications
EMSEAL products are designed and manufactured to meet the demands of both the remediation of existing buildings and the maintenance of new structures.

EMSEAL products address the application demands of modern construction. From small details such as traffic point loads to larger concerns such as LEED certification and seismic design, EMSEAL is meeting the evolving demands of modern architecture and engineering. This catalog displays EMSEAL's architectural product line of joint sealant technologies.

EMSEAL Product Features
Breakthroughs in Foam Impregnations
The backpressure resulting from impregnated foam technology eliminates the need for mechanical anchoring methods. Screws and other hardware, which traditionally have been the only means to anchor to a substrate, are eliminated. Non-invasive anchoring allows for a secure hold with simpler installation in a much shorter time.

EMSEAL's microsphere-modified, 100% acrylic impregnation is unique in enhancing the desirable characteristics of the foam base such as resilience, while imparting water and temperature resistance. This formulation outperforms imitation products and avoids shortcomings such as low temperature brittleness and high temperature instability.

First in Fire-Rated, Watertight, Multi-Purpose Joint Seals
Certified by Underwriters Laboratories to the rigors of UL-2079, EMSEAL’s Emshield® series of products is changing the expansion joint sealing game. It is no longer necessary to have to choose between watertightness and fire rating. Because the fire rating is now built into the expansion joint it is no longer necessary to specify two installations of separate joint sealant and fire-resistant joint fillers in either decks or walls. EMSEAL also offers a pick-resistant, fire-rated expansion joint when vandalism and tampering are an important concern.
Enhanced R-Value
EMSEAL’s foam-based, wall-joint systems are excellent insulators. They contain no metal and attach to substrates without invasive metal anchors avoiding any conductive thermal bridge in wall components. Whether for small joints in façade panels or at window perimeters, or in the backup walls of cavity-wall construction, or even in structural walls of block or precast, EMSEAL joint sealants provide continuity of insulation at all penetrations.

Sound Barrier
Walls sealed with our preformed sealants have sound absorption properties that approximate those of a solid wall. Independent laboratory STC and OITC tests prove that filling a structural joint with an EMSEAL product can restore the original sound transmission coefficient of the wall itself. Choose a fire-rated EMSEAL product and the wall is sound-proofed, fire-rated, insulated, color-coordinated and able to move – all in a single product installation.

Commitment to Service and Quality Assurance
At EMSEAL service begins from the first contact and continues throughout the design, procurement and installation process. A comprehensive EMSEAL representation network throughout the US, Canada, and increasingly throughout the world is serviced locally by Regional Managers and/or representatives and is backed up at our corporate headquarters by dedicated Regional Inside Technical Support staff.

Using project-specific application checklists and web and phone-based collaboration to address job requirements, the support staff will work with you to understand and meet your needs. The result is a working relationship with EMSEAL that produces the best product choice and solution for your specific project.

Ecologically Sound (LEED)
EMSEAL’s hybrid impregnated materials use water-based emulsions and contain no chlorinated wax, isobutylene or other deleterious chemicals. The unique features of these products are synchronous with LEED design principles and can contribute toward achieving LEED points. And EMSEAL foam products have an industry-leading lifecycle advantage. Recent LEED projects include sealing all 6,514 windows on the Empire State Building LEED Gold Retrofit.

Corporate Sustainability
EMSEAL is certified and recognized by SBLP as a leader in sustainable business. The corporate mission of EMSEAL embraces the commitment to ecological sustainability.

EMSEAL Track Record
The list of successful EMSEAL expansion joint installations is growing every day. We are the basis of design in original construction and are the industry leader for retrofitting existing structures. A small sample of recent work includes:
- Fenway Park / Empire State Building / Mercedes-Benz Stadium
- Microsoft Campus / Yankee Stadium / Pentagon
- Museum of Modern Art (NY) / Honolulu Airport ConRAC
- Mall of America / University of Michigan / Basra Stadium
- Louis Armstrong Airport / Seattle Tunnel / Gateway Arch
- CN Tower / Texas A&M / Citi Field / Children’s Hospital (PA)
- Hudson Yards / CNN Plaza / Manchester Airport / Dell HQ
- Petco Park / Walmart Distribution Centers / Lambeau Field
- Cal Poly Pomona / Bogota El Dorado International Airport
- Bole International Airport / Smithsonian Museum / Target Field
- Metro de Panama / Art Institute of Chicago / Clorox Plaza
- Foxwoods Casino / US Air Force Academy / Metro Qatar
- Abu Dhabi Financial Center / Planet Godrej - India
- United States Mint / Lincoln Center / The World Bank
- Berlin Federal Palace / Bryant Denny Stadium (U. of Alabama)
- Port Allen River Lock / Atlanta International Airport ConRAC

Our Commitment is Unparalleled
Beyond offering the industry’s most innovative and successful line of expansion joints, we are committed to partnering with you at every phase of the construction process. From the person answering the phone to the regionally dedicated inside and in-field technical support of our Tech Team and Regional Sales Managers, to our online chat and gotomeeting collaboration, EMSEAL is completely dedicated to your satisfaction and the success of your project.

EMSEAL offers SWRI and AIA certified training in all facets of expansion joint application and installation. Accredited courses are offered locally and at EMSEAL’s corporate headquarters in Westborough, MA.

Comprehensive information is available on the web at www.emseal.com. If you would like to discuss a specific application’s demands please call us at 508-836-0280.
## Wall Joints Above-Grade – Product Selection Guide

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size (at Mean T°)</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Seal to Field Applied Liquid Sealant, 50% Movement</td>
<td>1/4” to 6” (6 - 150mm)</td>
<td>Backerseal</td>
<td>13</td>
</tr>
<tr>
<td>Structural Joints in Exterior Walls Lowest Cost, Primary Seal, Reel Package Quick Installation, 80% Movement</td>
<td>1/2” to 1 1/4” (12 - 30mm)</td>
<td>Colorseal-On-A-Reel</td>
<td>9</td>
</tr>
<tr>
<td>Structural Joints in Exterior and Interior Walls 1, 2 or 3-Hour Fire-Rated, Watertight WFR1, WFR2 100% / WFR3 50% Movement</td>
<td>1/2” to 6” (12 - 150mm)</td>
<td>Emshield WFR1 / WFR2 / WFR3</td>
<td>14</td>
</tr>
<tr>
<td>Structural Joints in Exterior and Interior Walls Pick-Resistant/Tamper-Resistant 2-Hour Fire-Rated, Watertight SSW2 100% / SSW3 50% Movement</td>
<td>1/2” to 6” (12 - 150mm)</td>
<td>Emshield Security Seal SSW</td>
<td>15</td>
</tr>
<tr>
<td>Structural Joints in Exterior Walls Primary Seal, 100% Movement</td>
<td>1/2” to 10”* (12 - 250mm)</td>
<td>Colorseal/Seismic Colorseal</td>
<td>10</td>
</tr>
<tr>
<td>Curved Expansion Joints New to Old Additions</td>
<td>1/2” to 10”* (12 - 250mm)</td>
<td>Colorseal/Seismic Colorseal</td>
<td>10</td>
</tr>
<tr>
<td>Dual Sealing One Install 100% Movement</td>
<td>1/2” to 10”* (12 - 250mm)</td>
<td>Seismic Colorseal DS</td>
<td>12</td>
</tr>
<tr>
<td>Color Switching to Match Substrate Changes</td>
<td>1/2” to 10”* (12 - 250mm)</td>
<td>Colorseal/Seismic Colorseal</td>
<td>10</td>
</tr>
<tr>
<td>Size Switching to Accommodate Joint Gap Variations</td>
<td>1/8” to 8”* (3 - 200mm)</td>
<td>Backerseal / Colorseal/Seismic Colorseal</td>
<td>13</td>
</tr>
</tbody>
</table>

* EMSEAL has provided seals up to 20” (500mm) wide in specific applications. Please consult with EMSEAL about your specific needs.

## Wall Joints Below-Grade – Product Selection Guide

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size (at Mean T°)</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Side Accessible</td>
<td>1/2” to 4”* (12 - 100mm)</td>
<td>DSM / DSM-DS</td>
<td>32</td>
</tr>
<tr>
<td>Blind or Positive Side</td>
<td>2” to 5” (50 - 125mm)</td>
<td>BG SYSTEM</td>
<td>33</td>
</tr>
</tbody>
</table>

* EMSEAL has provided seals up to 20” (500mm) wide in specific applications. Please consult with EMSEAL about your specific needs.

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**Usage Guide**

### Typical Substrates

- Brick
- Stone
- EIFS
- Concrete Blocks
- Gypsum Board
- Precast Panelized Systems
- Metal Panelized Systems
- Curtain Walls
- Fire-Rated Walls
- Tamper-Resistant Walls
- Window Walls
- Parapet Walls
- Cavity Walls
- Interior Acoustic
- Sky Bridges
- Window Perimeters

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**Wall Joints Above-Grade**

**Wall Joints Below-Grade**

**Usage Guide**

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**EMSEAL JOINT SYSTEMS, LTD** 25 Bridle Lane, Westborough, MA 01581 USA  
**PH: 508-836-0280**  **FX: 508-836-0281**  
**EMSEAL, LLC** 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada  
**PH: 416-740-2090**  **FX: 416-740-0233**  
**A SIKA COMPANY**
# Decks Solid Slab / Precast – Product Selection Guide

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected or Non-Traffic Deck Applications 100% Movement</td>
<td>1/2” to 10”* (12 - 250mm)</td>
<td>Horizontal Colorseal</td>
<td>20</td>
</tr>
<tr>
<td>Top and Intermediate Decks 100% Movement</td>
<td>1/2” to 4”* (12 - 100mm)</td>
<td>DSM System</td>
<td>16</td>
</tr>
<tr>
<td>Tee-to-Tee and Other Control Joints Ideal for Correcting Pour Problems</td>
<td>1/2” to 4”* (12 - 100mm)</td>
<td>DSM System</td>
<td>16</td>
</tr>
<tr>
<td>Perimeter Joints</td>
<td>1/2” to 4”* (12 - 100mm)</td>
<td>DSM System</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1/2” to 8”* (12 - 200mm)</td>
<td>Horizontal Colorseal</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hour Fire-Rated, Top &amp; Intermediate Decks, Watertight, Trafficable, Single Installation DFR2 100% Movement</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>Emshield DFR2</td>
<td>18</td>
</tr>
<tr>
<td>3-Hour Fire-Rated, Top &amp; Intermediate Decks, Watertight, Trafficable, Single Installation DFR3 50% Movement</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>Emshield DFR3</td>
<td>18</td>
</tr>
<tr>
<td>2-Hour Fire-Rated, Pick and Tamper Resistant, Watertight, Trafficable, Single Installation SSF2 100% Movement</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>Emshield SecuritySeal SSF2</td>
<td>19</td>
</tr>
<tr>
<td>3-Hour Fire-Rated, Pick and Tamper Resistant, Watertight, Trafficable, Single Installation SSF3 50% Movement</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>Emshield SecuritySeal SSF3</td>
<td>19</td>
</tr>
<tr>
<td>Top and Intermediate Decks, Blockout Mounted</td>
<td>1” to 5-1/2”* (max 25 - 140mm)</td>
<td>Thermaflex Series</td>
<td>25</td>
</tr>
<tr>
<td>Large or Seismic Top and Intermediate Decks Joint-Face Adhered with Integral Coverplate SJS 100% Movement</td>
<td>2” to 24” (50 - 600mm)</td>
<td>SJS System</td>
<td>22</td>
</tr>
<tr>
<td>1-Hour Fire-Rated, Large or Seismic Top and Intermediate Decks Joint-Face Adhered with Integral Coverplate, 100% Movement</td>
<td>2” to 10” (50 - 250mm)</td>
<td>SJS-FR1 System</td>
<td>24</td>
</tr>
<tr>
<td>2-Hour Fire-Rated, Large or Seismic Top and Intermediate Decks Joint-Face Adhered with Integral Coverplate, 100% Movement</td>
<td>2” to 10” (50 - 250mm)</td>
<td>SJS-FR2 System</td>
<td>24</td>
</tr>
</tbody>
</table>

* EMSEAL has provided seals up to 20” (500mm) wide in specific applications. Please consult with EMSEAL about your specific needs.

## Usage Guide

**Typical Substrates**

- Parking Decks
- Roof Joints
- Ice Rink Perimeters
- Stair/Elevator Tower Perimeters
- Stadium Tread and Risers
- Sidewalks
- Fire-Rated Applications
- Airport Aprons
- Roadways
- Parking Decks
- Stadium/Arena Treads & Risers
- Concourses
- Floors

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The product range is continually being updated. EMSEAL® reserves the right to modify the specifications of any product.

EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westborough, MA 01581 USA
EMSEAL, LLC 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada

PH: 508-836-0280  FX: 508-836-0281
PH: 416-740-2090  FX: 416-740-0233
# Decks Split Slab / Plaza – Product Selection Guide

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size (at Mean T°)</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrially Tied into Split Slab Construction</td>
<td>Up to 3” max (75mm) max</td>
<td>Migutan FP 110</td>
<td>26</td>
</tr>
<tr>
<td>Integrially Tied into Split Slab Construction</td>
<td>Up to 4 3/4” max (120mm)</td>
<td>Migutan FP 155</td>
<td>26</td>
</tr>
<tr>
<td>For Expansion Joints that Tie into Split Slab Construction, also Solid Slab to Split Slab Construction</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>DSM-FP System</td>
<td>28</td>
</tr>
<tr>
<td>For Expansion Joints that Tie into Split Slab Construction, also Solid Slab to Split Slab Construction, 2-Hour or 3-Hour Fire-Rated</td>
<td>1/2” to 4” (12 - 100mm)</td>
<td>DFR-FP System</td>
<td>29</td>
</tr>
<tr>
<td>For Large or Seismic Designed Joints that Tie into Split Slab Construction with Integral Coverplate</td>
<td>2” to 24” (50 - 600mm)</td>
<td>SJF-System</td>
<td>30</td>
</tr>
<tr>
<td>For Large or Seismic Designed Joints that Tie into Split Slab Construction 1-Hour or 2-Hour Fire-Rated</td>
<td>2” to 10” (50 - 250mm)</td>
<td>SJF-FR System</td>
<td>31</td>
</tr>
</tbody>
</table>

# Usage Guide

## Typical Substrates
- Podium Decks
- Split Slab Plaza Decks
- Garden Roofs
- Roadways
- Stadium Concourses

## Typical Uses
- Roofs
- Roof to Wall Transitions
- Water Treatment Facilities
- Water Parks
- Swimming Pools
- Fountains
- Spill Containment
- Chemical Environments
- Potable Water

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* For head pressure limitations please consult with EMSEAL about your specific needs.
** Consult EMSEAL for Submerseal / Chemseal / DSF performance specifications.
### Interior Floors & Walls – Product Selection Guide

<table>
<thead>
<tr>
<th>Application</th>
<th>Standard Joint Size (at Mean T°)</th>
<th>EMSEAL Product</th>
<th>Cat. Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Floors and Interior Walls</td>
<td>Up to 24” max (600mm) max</td>
<td>Various Products</td>
<td>39-42</td>
</tr>
<tr>
<td>Interior Walls 1, 2, or 3-Hour Fire-Rated Single Product</td>
<td>1/2” to 6” (12 - 150mm)</td>
<td>Emshield WFR1 / WFR2 / WFR3</td>
<td>14</td>
</tr>
<tr>
<td>Interior Walls Pick-Resistant/Tamper-Resistant 2-Hour Fire-Rated Single Product</td>
<td>1/2” to 6” (12 - 150mm)</td>
<td>Emshield SecuritySeal SSW2</td>
<td>15</td>
</tr>
<tr>
<td>Interior Floors 2-Hour Fire-Rated Single Product</td>
<td>1/2” to 4” (2 - 100mm)</td>
<td>Emshield DFR2</td>
<td>18</td>
</tr>
<tr>
<td>Interior Floors 3-Hour Fire-Rated Single Product</td>
<td>1/2” to 4” (2 - 100mm)</td>
<td>Emshield DFR3</td>
<td>18</td>
</tr>
<tr>
<td>Interior Floors Pick-Resistant/Tamper-Resistant 2-Hour Fire-Rated Single Product</td>
<td>1/2” to 4” (2 - 100mm)</td>
<td>Emshield SecuritySeal SSF2</td>
<td>19</td>
</tr>
<tr>
<td>Interior Floors Pick-Resistant/Tamper-Resistant 3-Hour Fire-Rated Single Product</td>
<td>1/2” to 4” (2 - 100mm)</td>
<td>Emshield SecuritySeal SSF3</td>
<td>19</td>
</tr>
<tr>
<td>Interior Floors Rapid Installation Trafficable with Coverplate</td>
<td>1” to 4” (25 - 100mm)</td>
<td>QuickCover</td>
<td>38</td>
</tr>
<tr>
<td>Interior Walls and Ceilings Acoustic and Thermal Joint and Gap Filler for Non-Moving Joints and Gaps</td>
<td>1” to 6” (25 - 150mm)</td>
<td>QuietJoint</td>
<td>37</td>
</tr>
</tbody>
</table>

### Usage Guide

**Typical Uses**

- Convention Centers
- Stadiums
- Arenas
- Hospitals
- Warehouses
- Schools
- Office Buildings
- Condos
- Airports
- Shopping Malls
- Casinos
- Fire-Rated Locations
- Prisons & Secure Facilities
Colorseal-on-a-Reel is a silicone-coated, pre-compressed, primary seal for rapid installation into small joints in vertical and horizontal planes. It is a cost-effective version of EMSEAL's industry-standard Seismic Colorseal® product shipped on a reel for rapid installation into small joints — 1/2 to 1 1/4-inches wide (12 - 30mm). Reel-packaging, in contrast to 'stick' packaging: reduces waste, lowers production costs, makes handling easier, and installs rapidly. COR is a fraction of the price of similarly sized stick Colorseal. Its installed-cost makes COR a cost-effective alternate to 'caulk and backer rod'.

- Rapid installation – new or retrofit
- Watertight
- Airtight
- Thermally insulating
- Sound dampening
- Cost-effective
- Ships on 10-foot reels
- Wide range of standard and custom colors
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- Bellows remain tension-free during joint movement
- Easily handles changes in plane and direction
- Conforms to substrate irregularities
- Resists hurricane force wind & water
- ABAA Compliant
- Movement of + 30% / - 50% (Total 80%) of nominal size

**Colorseal-on-a-Reel Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 1/4 (30)</td>
<td>1 3/4 (45)</td>
</tr>
</tbody>
</table>
Seismic Colorseal (Colorseal®) is a silicone-coated, precompressed, primary seal that is used in structural, high-movement joints in virtually any substrate. It is ideally suited for watertightness in vertical or horizontal structural, seismic and abutment joints in the vertical plane.

- Watertight
- Non-invasive anchoring
- Primary seal
- Wide range of standard and custom colors
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- Supplied on 10-foot reel for sizes under 1 1/2" (40mm)
- Thermally insulating
- Acoustic dampening – STC rated 52 (in a STC 56 wall)
  OITC rated 38 (in a OITC 38 wall)
- Bellows remain tension-free during joint movement
- Won’t suffer from compression set
- Movement of +/- 50% (Total 100%) of nominal size

*Product Update: Decades of successful performance have proved “Seismic Colorseal” to provide functionally equivalent performance to “Colorseal” while offering more movement capability and better price value. Both products are now built the same, feature the same movement capability and are priced the same. All shipments are marked “Seismic Colorseal”.*
EMSEAL RoofJoint, roof expansion joint, is a dual-seal, double-flanged, extruded thermoplastic rubber system for complete building envelope sealing, ensures thermal insulation, and adds a third water seal to the roof assembly.

- Heat welded transitions at tees, crosses, roof-to-wall, etc.
- Watertight transition to SEISMIC COLORSEAL wall joints
- Uniquely addresses wall joint to roof joint interface
- STAR GRAY 75
- Double-level roof-membrane integration flange
- Available in TPV (to TPO) or NPVC (to PVC) for broadest
- TPV available in reflective white color

**Seismic Colorseal**

**Seismic Colorseal Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 * (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4&quot; (20)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1&quot; (25)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 1/4&quot; (35)</td>
<td>1 3/4 (45)</td>
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<tr>
<td>2 (50)</td>
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<td>3 (75)</td>
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<td>4 (100)</td>
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<td>5 (125)</td>
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<td>6 (150)</td>
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<td>7 (175)</td>
<td>7 (175)</td>
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<tr>
<td>8 (200)</td>
<td>8 (200)</td>
</tr>
<tr>
<td>9 (225)</td>
<td>8 (200)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>8 (200)</td>
</tr>
</tbody>
</table>

Seismic Colorseal sizes are available in 1/4" increments in nominal sizes from 1" to 6", and 1/2" increments from 6" to 10". Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.

* Supplied on 10-foot Reels

**Seismic Colorseal (Colorseal*)** silicone bellows are available in many industry standard colors to match leading construction silicone sealants. Contact EMSEAL for matching availability.

Seismic Colorseal is held in place by the back-pressure of the expanding foam in conjunction with a field-installed bead of silicone caulk at the substrate-to-bellows interface.

Sizes from 1/2-inch (12mm) to 1 1/4 (30mm) are manufactured with a single bellows silicone face. Larger sizes up to 8-inches (200mm) are manufactured with multiple bellows.

Seismic Colorseal is an excellent, simple sealing solution at inside corner conditions where it is impossible to install mechanically-fastened "strip-seal" systems. In cavity-wall conditions, installation of Seismic Colorseal in the structural backup maintains integrity of thermal insulation as well as the air barrier while preventing passage of cavity moisture into the structure.

Seismic Colorseal is uniquely suited to sealing structural joints in curtainwalls. Non-invasive anchoring means that mullions are not violated by screwing through them as occurs with "strip-seal" systems.
Seismic Colorseal-DS

**Seismic Colorseal-DS** is a unique, highly innovative, double-side coated variation of EMSEAL’s acclaimed Seismic Colorseal material. Ideally suited for shallow substrates where sealing or finishing of both sides of the structure is desired in one installation.

- Watertight
- Rapid installation to seal two surfaces (front and back) in a single installation
- Non-invasive anchoring
- Wide range of standard and custom colors
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- Thermally insulating
- Acoustic dampening – STC rated 54 (in a STC 56 wall)
  OITC rated 38 (in a OITC 38 wall)
- Bellows remain tension-free during joint movement
- Movement of +/- 50% (Total 100%) of nominal size in any direction

### Seismic Colorseal-DS Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean TF</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>2 3/4 (70)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>2 1/2 (70)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>2 3/4 (70)</td>
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<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
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<tr>
<td>3 (75)</td>
<td>3 1/2 (90)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 1/2 (115)</td>
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<td>5 (125)</td>
<td>5 1/2 (140)</td>
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<td>7 (175)</td>
<td>7 (175)</td>
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<td>8 (200)</td>
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<tr>
<td>9 (225)</td>
<td>8 (200)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>8 (200)</td>
</tr>
</tbody>
</table>

### Typical Seismic Colorseal-DS Usage

Seismic Colorseal-DS can be made in custom depths to seal both sides of shallow substrates.

Seismic Colorseal-DS seals interior and exterior sides of curtain wall joints in a single installation step. Each side can have its own color to match interior and exterior color schemes. For parapets it can provide a top, front, and back sealed surface addressing all three exposed planes.

**Sound Attenuation**

**STC 54 / OITC 38**

### Watertight by design

**EMSEAL JOINT SYSTEMS, LTD**
25 Bridle Lane, Westborough, MA 01581 USA

**EMSEAL, LLC**
111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada

PH: 508-836-0280  FX: 508-836-0281
PH: 416-740-2090  FX: 416-740-0233

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.
**Backerseal®**

Backerseal (Greyflex) is an economical preformed expanding foam sealant that provides watertight secondary sealing in applications behind conventionally installed liquid sealant and backer rod or directly behind field-applied low modulus liquid sealants.

- Watertight
- Featuring EMSEAL’s exclusive, breakthrough, microsphere-modified acrylic impregnation technology
- Watertight, odorless, clean handling, non-staining, low-temperature flexible, high-temperature stable
- Thermally insulating
- Acoustic dampening – STC rated 53 (in a STC 68 wall) OITC rated 49 (in a OITC 52 wall)
- Conforms to joint gap irregularities
- Also available in sticks
- Movement of +/- 25% (Total 50%) of nominal size

### Typical Backerseal Usage

Backerseal in place as a secondary seal to liquid sealant and backer rod. This double system ensures a redundant seal to water and insulates against energy loss while preserving the liquid sealant manufacturer’s geometry for optimal performance.

### Sound Attenuation

STC 53 / OITC 49

Backerseal with directly-applied, low modulus liquid sealant provides redundant sealing in shallow-depth substrates.

### Backerseal Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/4 (6)</td>
<td>3/4 (20)</td>
</tr>
<tr>
<td>3/8 (10)</td>
<td>3/4 (20)</td>
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<tr>
<td>1/2 (12)</td>
<td>3/4 (20)</td>
</tr>
<tr>
<td>5/8 (15)</td>
<td>1 (25)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>1 (25)</td>
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<tr>
<td>1 (25)</td>
<td>1 1/4 (30)</td>
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<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
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<tr>
<td>3 (75)</td>
<td>3 1/8 (80)</td>
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<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>5 (125)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>6 (160)</td>
</tr>
</tbody>
</table>

Structures of all sizes can benefit from the sealing of thermal and sound conditions as well as the ease-of-installation offered by Backerseal.
Emshield® WFR1 / WFR2 / WFR

**Walls Above Grade**

**FIRE-RATED**

Watertight by design®

---

**Emshield WFR1 / WFR2 / WFR3**

Emshield® WFR1, WFR2 and WFR3 are single-unit, fire-rated expansion joints which provide water protection, sound attenuation, thermal insulation, color coordination, and accommodate structural joint movement. WFR1 (Wall, Fire-Rated 1-Hour), WFR2 (Wall, Fire-Rated 2-Hours) and WFR3 (3-Hours) continue the line of breakthrough, multi-function, structural expansion joint materials from EMSEAL. Both have been tested and certified by Underwriters Laboratories (UL) to the rigors of UL and ULC 2079.

Fire-retardant impregnated foam is factory pre-coated on both faces with a waterproof silicone coating which is available in a wide choice of colors (contact EMSEAL) for each side. *WFR3 is also pre-coated on both faces with an intumescent fire-proofing material.

Providing an excellent barrier to sound transfer, WFR1, WFR2 and WFR3 have an STC rating of 62 (in a STC 68 wall) and an OITC rating of 52 (in a OITC 52 wall). They have also been tested to ASTM E330, ASTM E331, and ASTM E283 standards maintaining air pressure and stopping water and wind penetration at 200 mph.

Emshield WFR1, WFR2 and WFR3 provide a watertight, clean handling, UV stable, non-staining, low-temperature-flexible, high-temperature-stable, energy-efficient, sound attenuating and fire-rated joint seal in a single installation process. For interior and exterior walls.

WFR1 and WFR2 movements of +/- 50% (100% total).

WFR3 movements of +/- 25% (50% total).

---

**Emshield WFR1 / WFR2 / WFR3 Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean °F</th>
<th>WFR1 / WFR2 Depth of Seal</th>
<th>WFR3 Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>1 1/4 (30)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>1 1/2 (40)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>1 3/4 (45)</td>
<td>4 (100)</td>
<td>5 (125)</td>
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<tr>
<td>2 (50)</td>
<td>4 (100)</td>
<td>5 (125)</td>
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<tr>
<td>3 (75)</td>
<td>4 (100)</td>
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<td>4 (100)</td>
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<td>4 (100)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>4 (100)</td>
<td>5 (125)</td>
</tr>
</tbody>
</table>

WFR sizes are available in 1/4" increments of nominal sizes from 1" to 6". Nominal size is equivalent to joint gap size at mean temperature.

---

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.

---

UL Systems
WW-D-0091, WW-D-0092, WW-D-1079
WW-D-1087, HW-D-0615, HW-D-1090
WW-D-1128, WW-D-1129
WW-D-0099, WW-D-1087

ULC Systems
JF131, JF132, HW77, JF145

---

**Now Available**

Emshield WFR UNIVERSAL-90’s Factory-Fabricated Transitions & Terminations

---

**Sound Attenuation**

STC 62 / OITC 52

---

One Install Does It All

---

Water / Fire / Energy / Sound / Movement

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**Sound Retardant Impregnated Foam**

---

Silicone-Faced Bellows (Available in many industry colors)

---

EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westborough, MA 01581 USA
EMSEAL, LLC 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada

PH: 508-836-0280  FX: 508-836-0281
PH: 416-740-2090  FX: 416-740-0233

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14
Pick-Resistant, 2-hour Fire-Rated, Watertight, Wall Expansion Joint

EMSHIELD® SecuritySeal® SSW2 is a pick-resistant, watertight, 2-hour fire-rated, expansion joint for vertical locations requiring a hardened tamper-resistant surface. Institutional walls found in prisons, detention centers, mental and psychiatric hospitals, school facilities, and day-care centers are some of the many venues where SecuritySeal SSW is preferred.

- Watertight
- Hardened pick-resistant surface
- 2-hour built-in fire rating (UL/ULC-certified)
- Warranted for watertightness
- Non-invasive anchoring
- Size switching accommodates joint gap variations
- Thermally insulating
- Acoustic dampening – STC rated 62 (in a STC 68 wall)
  OITC rated 52 (in a OITC 52 wall)
- Won't suffer from compression set
- Movement of +/- 50% (Total 100%) of nominal size

**SecuritySeal SSW2 Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>4 (100)</td>
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<tr>
<td>1 (25)</td>
<td>4 (100)</td>
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<tr>
<td>1 1/4 (30)</td>
<td>4 (100)</td>
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<tr>
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<td>4 (100)</td>
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<tr>
<td>1 3/4 (45)</td>
<td>4 (100)</td>
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<td>2 (50)</td>
<td>4 (100)</td>
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<td>3 (75)</td>
<td>4 (100)</td>
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<td>4 (100)</td>
<td>4 (100)</td>
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<tr>
<td>5 (125)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

SSW2 sizes are available in 1/4" increments of nominal sizes from 1/2" to 6". Nominal size is equivalent to joint gap size at mean temperature.

**Typical SecuritySeal SSW Usage**

SecuritySeal SSW is manufactured with a single bellow polyurethane face on both sides when used in a gap from 1/2-inch (12mm) to 1 1/4-inch (30mm). (Topview)

*Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.*
The **DSM System** is a traffic durable, joint-face adhered, precompressed primary seal. Using a microsphere-modified-acrylic impregnation and factory pre-coated with highway-grade silicone, this system builds on EMSEAL’s track record of over 30 years of sealing horizontal plane joints with impregnated foam sealants.

- Traffic durable
- Watertight
- UV stable
- Non-invasive anchoring
- Non-staining
- ADA compliant
- Rapid installation – new or retrofit
- Low-temperature flexible, high-temperature stable
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- Movement of +50% and -50% (Total 100%) of nominal size *

---

**Typical DFR-FP Usage**

> The waterproofing of stadium expansion joints seen here in the precast seating bowl. DFR offers continuity of seal through changes in plane and direction.

> DSM is uniquely suited to retrofitting existing joints and readily replaces failed caulk, compression seals, inflated seal, and closed-cell joint fillers.

> The DSM System is a traffic-durable, lasting solution to high movement and heavy load traffic found in today’s parking structures. New construction and retrofit applications are a perfect fit for DSM.

---

**DFR-FP Sizing**

<table>
<thead>
<tr>
<th>Joint Size (Inches)</th>
<th>Movement of +/-</th>
<th>Total Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+50% and -50%</td>
<td>100%</td>
</tr>
<tr>
<td>3/4</td>
<td>+50% and -50%</td>
<td>100%</td>
</tr>
<tr>
<td>1/2</td>
<td>+50% and -50%</td>
<td>100%</td>
</tr>
<tr>
<td>1</td>
<td>+50% and -50%</td>
<td>100%</td>
</tr>
</tbody>
</table>

---

**Emshield® DFR-FP**

> UL and ULC 2079. Emshield® DFR-FP has been certified by Underwriters Laboratories (UL) to the rigors of integrations (e.g. columns, HVAC, electrical, plumbing, etc.) DFR-FP allows for waterproofing in split-slab deck designs through the use of side flashing sheets that integrate with the deck waterproofing membrane. Emshield DFR-FP is a fire-rated waterproof solution to split-slab deck applications.

---

**DFR-FP Sizes**

- DFR-FP sizes are available in 1/4" increments in nominal sizes from 1" to 4".
- Nominal size is equivalent to joint gap.
DSM System Technology provides a structural joint sealant solution. Here DSM is installed at the top of a ramp where a driveway transitions from on-grade to supported slab and from deck-to-deck to deck-to-wall.

Where metal angles exist and cannot be removed DSM can be installed into the existing metal angles.

120 gallon per minute fire-hose water test proves DSM SYSTEM is watertight along its length, at joints and even at cross intersections of multiple sizes. Size switching ensures correct size product is in place despite joint size variation.

DSM is an ideal solution for deck to deck light and heavy traffic. This watertight product is easily installed and provides a low service cost during its life span.

Where metal angles exist and cannot be removed DSM can be installed into the existing metal angles.

The non-invasive anchoring method makes DSM a great choice for deck-to-wall applications.

DSM sizes are available in 1/4" increments in nominal sizes from 1" to 4". Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.

* Note: For sizes of 3" and greater consult EMSEAL for application-specific DSM performance specifications.

### DSM Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>2 (50)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3* (75)</td>
<td>3 1/4 (80)</td>
</tr>
<tr>
<td>4* (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

DSM sizes are available in 1/4" increments in nominal sizes from 1" to 4". Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature. * Note: For sizes of 3" and greater consult EMSEAL for application-specific DSM performance specifications.
Emshield® DFR2 / DFR3

Traffic Durable, Watertight, 2-hour & 3-hour Fire-Rated Deck/Floor Expansion Joint

Emshield® DFR2 and DFR3 are single unit fire-rated, traffic durable, high movement and watertight expansion joints. Emshield DFR2 (Deck, Fire-Rated 2-Hours) and Emshield DFR3 (Deck, Fire-Rated 3-Hours) have been tested and certified by Underwriters Laboratories (UL) to the rigors of UL and ULC 2079.

Installed entirely from floor/deck surface above allowing for easier installation without compromising continuity of the fire-barrier from obstructions (e.g. columns, HVAC, electrical, plumbing, etc.)

Emshield DFR2 and DFR3 provide a watertight, clean handling, UV stable, non-staining, low-temperature-flexible, high-temperature-stable, traffic durable and fire-rated joint seal in a single installation process.

- Watertight
- Built-in fire-rating
- Conforms to joint gap irregularities
- Installed from above floor/deck
- No lifts or holding labor needed
- Eliminates traditional need for fire-blankets or gutters
- Acoustic dampening – STC rated 62 / OITC rated 52
- Non-invasive anchoring
- DFR2 Movement of +/- 50% (Total 100%)
  DFR3 Movement of +/- 25% (Total 50%)

Emshield DFR2 and DFR3 can be installed in interior and exterior horizontal locations needing a UL/ULC certified fire rating, its non-invasive anchoring design allows it to be easily installed in deck-to-deck (floor-to-floor) or deck-to-wall locations. Parking garages, mechanical rooms, stadiums, retail stores, and other locations with trafficable floor/deck conditions will benefit from the installation of this watertight, sound-suppressing, thermally insulating fire-rated expansion joint. (DFR2 shown above / DFR3 shown below)

Emshield DFR2/3 Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean °F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>4 (100)</td>
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<tr>
<td>3 (75)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

DFR2 and DFR3 nominal material size is equivalent to joint gap size at mean temperature. Also available in 1/4-inch increments from 1/2-inch to 4-inches.

Typical DFR2/DFR3 Usage

Emshield® DFR2 and DFR3 are available in joint sizes to fit a variety of applications. Consult Emshield® DFR2/DFR3 CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.

UL Systems
- FF-D-0075, FF-D-1086, FW-D-0052
- FW-D-1075, FF-D-1090
- FW-D-1053, FW-D-1075

ULC Systems
- UFJ30, UFJ133, UFJ137, UFJ138

Now Available
Emshield® DFR
UNIVERSAL-90's
Factory-Fabricated Transitions & Terminations

See page 21

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.

EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westbrook, MA 01581 USA
EMSEAL, LLC 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada
SecuritySeal® SSF2 / SSF3

Pick-Resistant, 2-hour and 3-hour Fire-Rated, Watertight, Floor/Deck Expansion Joint

Emshield® SecuritySeal® SSF2 and SecuritySeal® SSF3 are pick-resistant, watertight, 2-hour (SSF2) and 3-hour (SSF3) fire-rated expansion joints for horizontal locations requiring a hardened tamper-resistant surface.

Installed entirely from floor/deck surface above allowing for easier installation without compromising continuity of the fire-barrier from obstructions (e.g. columns, HVAC, electrical, plumbing, etc.)

Floors and decks found in prisons, detention centers, public parking garages, mental and psychiatric hospitals, and school facilities are some of the many venues where SecuritySeal SSF is the perfect choice. Floor joints which join fire-rated walls in common rooms, mechanical rooms, and stairwells are typical locations of use.

- Hardened pick-resistant surface
- 2-hour and 3-hour built-in fire-rated (UL/ULC-certified)
- Watertight
- Non-invasive anchoring
- Installed from above floor/deck
- No lifts or holding labor needed
- Acoustic dampening – STC rated 62 / OITC rated 52
- SSF2 Movement of +/- 50% (Total 100%) of nominal size
- SSF3 Movement of +/- 25% (Total 50%) of nominal size

SecuritySeal SSF2 / SSF3 Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>4 (100)</td>
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<tr>
<td>3 (75)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

SSF2 and SSF3 nominal material size is equivalent to joint gap size at mean temperature. Also available in 1/4 inch increments from 1/2-inch to 4-inches.

Now Available
SecuritySeal UNIVERSAL-90’s Factory-Fabricated Transitions & Terminations

Typical SecuritySeal SSF Usage

SecuritySeal SSF2 and SSF3 are manufactured with a single bellow face when used in a gap from 1/2-inch (12mm) to 1 1/2-inch (40mm). (SSF2 shown above)

SecuritySeal SSF2 and SSF3 can be used in deck-to-wall as well as deck-to-deck applications. (SSF3 shown above)
Horizontal Colorseal

Horizontal Colorseal is a high-movement silicone bellows system for deck applications used as a primary seal typically without a coverplate in non-traffic areas such as perimeters in decks or roofs. It can be used under a coverplate when pedestrian or vehicular traffic is expected.

- Watertight
- Non-invasive anchoring
- Supplied on 10-foot reel for sizes under 1 1/2” (40mm)
- Wide range of standard and custom colors
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- Thermally insulating and acoustic dampening
- Bellows are never under tension during joint movement
- No blockout required
- Movement of +/- 50% (Total 100%) of nominal size

**Horizontal Colorseal Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean 70°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
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<tr>
<td>1/2&quot; (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4&quot; (20)</td>
<td>1 3/4 (45)</td>
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<tr>
<td>1&quot; (25)</td>
<td>1 3/4 (45)</td>
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<tr>
<td>1 1/4&quot; (35)</td>
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<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 1/2 (90)</td>
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<tr>
<td>4 (100)</td>
<td>4 1/2 (115)</td>
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<tr>
<td>5 (125)</td>
<td>5 1/2 (140)</td>
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<tr>
<td>6 (150)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>7 (175)</td>
<td>7 (175)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>8 (200)</td>
</tr>
</tbody>
</table>

Horizontal Colorseal sizes are available in 1/4” increments in nominal sizes from 1" to 6" and 1/2” increments from 6” to 8”. Nominal size is equivalent to joint gap size at mean temperature. * Supplied on 10-foot Reel

**Typical Horizontal Colorseal Usage**

Horizontal Colorseal is often installed at the junction of a deck and a wall.

Horizontal Colorseal is typically installed in an area where vehicular or pedestrian traffic does not come in direct contact with the seal. In required vehicular situations it can be installed in conjunction with a metal coverplate.

**Now Available**
Horizontal Colorseal UNIVERSAL-90’s Factory-Fabricated Transitions & Terminations

See page 21
Universal-90’s

Prefabricated Transitions
Watertight by design©

Universal-90’s Transitions and Termination Points
Universal-90’s Transitions and Termination Points are patented, factory-fabricated, single-piece 90° units constructed from the same materials as the connecting precompressed expansion joint system. Bellows are constructed on both sides allowing a waterseal in an inner or outer 90° corner. This single unit achieves the greatest possible continuity of seal in transitions in planes, avoiding the limitations of field-made joins.

Using Universal 90’s in your expansion joint design ensures continuity of seal. Installation time is reduced and the integrity of the seal is maintained.

Universal-90’s are available for all coated EMSEAL products.

Some of the many applications:
- Stadiums
- Arenas
- Parking decks
- Floors
- Deck-to-wall
- Elevator tower perimeters
- Deck-to-deck
- Bridge expansion joints
- Water tanks
- Stair tower perimeters
- Tunnels and enclosures

NEW Kickout Terminations
direct water away from columns and elements.

Continuity of Seal at Upturns, Downturns and Termination Points

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.

EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westborough, MA 01581 USA
EMSEAL, LLC 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada
PH: 508-836-0280    FX: 508-836-0281
PH: 416-740-2090    FX: 416-740-0233

21
SJS – Seismic Joint System

SJS is a watertight, high-movement, sound-dampened coverplate system for large and seismic expansion joint gaps. SJS is constructed from two horizontal joints pre-assembled in parallel adjacent to a heavy-duty extruded aluminum spline. The system contains no metal embeds, self-centering bars, or other unnecessary metal components. The spline acts as a receptor for attaching the surface-mounted traffic plates that bear vehicle and other loads.

- Watertight
- Easy installation with non-invasive anchoring
- No hard metal-to-concrete connections
- Factory fabricated changes in plane and direction
- Aluminum or stainless steel coverplates available
- Field-adjustable plate support
- The quietest coverplate system available when installed with EMSEAL-supplied elastomeric nosing material
- Coverplate is easy to install with self-locating, vibration-dampening screws
- Does not depend on a gutter
- Designed for gaps of 2-inches (50mm) or larger
- Movement of +/- 50% (Total 100%) of nominal size
- Fire-Rated version also available. See Page 24
  *SJS-FR1 1-hour UL/ULC-certified
  *SJS-FR2 2-hour UL/ULC-certified

The back pressure of the SJS foam and an epoxy adhesive provides watertightness with non-invasive anchoring without relying on a gutter. Installation is faster than other more complicated systems.

EMSEAL offers pre-fabricated factory transitions for treads and risers which allow for ease of installation and which also ensure watertightness in changes of plane.

Installation is completed with aluminum or stainless steel coverplates. The center spline functions as a continuous receptor for the self-locating coverplate screws allowing for greater ease of installation. The coverplate edge-chamfer is available in standard or optional low-slope configurations.

Watertightness is assured at the traffic surface negating the need for ineffective moisture barriers and secondary gutters.

SJS-FR1 1-hour UL/ULC-certified
SJS-FR2 2-hour UL/ULC-certified

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.
SJS – Seismic Joint System

SJS Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>2 1/2 (65)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>3 1/2 (90)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>5 (125)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>7 (175)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>9 (225)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>5 (125)</td>
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<td>11 (275)</td>
<td>5 (125)</td>
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<tr>
<td>12 (300)</td>
<td>5 (125)</td>
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<tr>
<td>13 (325)</td>
<td>5 (125)</td>
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<tr>
<td>14 (350)</td>
<td>5 (125)</td>
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<tr>
<td>15 (375)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>16 (400)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>17 (425)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>18 (450)</td>
<td>5 (125)</td>
</tr>
</tbody>
</table>

SJS sizes are available in nominal sizes from 2” to 24”. Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.

SJS provides a solid trafficable solution to transitions along and over curbs.

Typical SJS Usage

The SJS Seismic Joint System installed flush with the joint surface.

Installation can also be made at deck-to-wall conditions.

SJS is now available for joint sizes as small as 2” (50mm).

SJS – Seismic Joint System

SJS is now available for joint sizes as small as 2” (50mm).

SJS provides a solid trafficable solution to transitions along and over curbs.

Typical SJS Usage

The SJS Seismic Joint System installed flush with the joint surface.

Installation can also be made at deck-to-wall conditions.

SJS is now available for joint sizes as small as 2” (50mm).

SJS provides a solid trafficable solution to transitions along and over curbs.
SJS-FR Fire-Rated Seismic Joint System

SJS-FR1 and SJS-FR2 are UL/ULC certified (2079) fire-rated, watertight, high-movement, sound-dampened systems for large and seismic expansion joint gaps. Designed for use in fire-rated concrete decks/floors, interior or open air slabs, treads and risers, in both new or retrofit construction.

Installed from floor/deck surface above allowing for easier installation without compromising continuity of the fire-barrier from obstructions (columns, HVAC, electrical, plumbing, etc.)

SJS-FR1 and SJS-FR2 have all of the performance advantages of the SJS System with the addition of a built-in UL-certified 1-hour (SJS-FR1) or 2-hour (SJS-FR2) fire rating. They are constructed of fire-retardant foam with an intumescent coating on the non-traffic underside. The top provides a warranted watertight seal. The topping coverplate provides a durable trafficable surface.

- 1-hour or 2-hour UL/ULC-certified fire-rated
- Built-in fire-rating
- Eliminates the need for fire-blankets or gutters
- Watertight
- Installed from above floor/deck
- No lifts or holding labor needed
- Easy installation with non-invasive anchoring
- No hard metal-to-concrete connections
- Aluminum or stainless steel coverplates available
- Coverplate is easy to install with self-locating, vibration-dampening screws
- Movement of +/- 50% (Total 100%) of nominal size

**SJS-FR Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>5 (125)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>7 (175)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>9 (225)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>6 (150)</td>
</tr>
</tbody>
</table>

*SJS-FR1 1-hour fire-rated
SJS-FR2 2-hour fire-rated

*Joint sizing of 2" (50mm) through 3½" (90mm) are also available. For performance specifications please consult EMSEAL.

The SJS-FR System with surface blockouts built-up with EMSEAL’s Emcrete nosing material. Beneath the coverplate, the nosing material acts as a leveling course and a sound-absorbing buffer. The coverplate can sit proud of the deck or recessed to be flush with the deck.

The SJS-FR System is a highly trafficable UL-certified fire-rated expansion joint for larger gaps of 4-inches (100mm) to 10-inches (250mm). Surface-mount or recessed coverplate is available in aluminum or stainless steel.

**Typical SJS-FR Usage**

Illustrations of 4" (100mm) and larger.

**SJS-FR1 and SJS-FR2** are fire-rated, watertight expansion seals which are designed for larger gaps. Their topping coverplate makes them the best solution for applications such as parking decks, stadium concourses and seating areas, interior and exterior floors, and other locations where larger or seismic gaps need a fire-rated, watertight, traffic-bearing expansion joint.
**Typical Thermaflex Usage**

Thermaflex provides a durable expansion joint which will stand up to direct traffic pressure. Factory-welded transitions are engineered to accommodate changes in plane over curbs, and in treads and risers on stadiums.

Thermaflex is constructed of extruded thermoplastic Santoprene® rubber sealing glands with punched flanges embedded in a high-strength, flexible, impact-absorbing elastomeric nosing.

Typical Thermaflex Usage

Deck to wall/column installation is achieved on the vertical surface with an expansion anchor and an aluminum termination plate.

Sealing glands are heat-weldable allowing for changes in direction or plane while maintaining watertightness. Factory-fabricated transitions allow for ease of installation. EMSEAL warrants its transitions both within the technology and transitions made in the vertical plane between dissimilar EMSEAL technologies to be watertight.

**Thermaflex®** is a traffic-durable membrane/nosing system. The gland used in the system becomes integral with the deck as the nosing material penetrates the perforations in the gland, encapsulates the flanges, and bonds to the concrete.

- Watertight
- Double-cell or multi-cell glands
- Heat weldable Santoprene gland
- Factory-fabricated transitions and terminations
- Cold-applied nosing is self-curing
- Nosing material is a two-part polyurethane reinforced with silica-free aggregate
- Aggregate loading is conservatively maintained not to exceed two parts aggregate to one part resin by weight
- Nosing material is easily troweled
- Durable under vehicular traffic and extreme weather conditions

**Thermaflex Sizing**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Installation Width</th>
<th>Blockout Dimensions (Each side of joint gap)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Preferred</td>
</tr>
<tr>
<td>TM 1.5</td>
<td>1 in</td>
<td>(25mm)</td>
</tr>
<tr>
<td>TM 2.5</td>
<td>2 1/4 in (55)</td>
<td>2 3/4 in (70)</td>
</tr>
<tr>
<td>TCR 300</td>
<td>3/4 in x (75)</td>
<td>3 1/2 in (100)</td>
</tr>
<tr>
<td>TCR 400</td>
<td>3/4 in x (115)</td>
<td>4 3/4 in (120)</td>
</tr>
<tr>
<td>TCR 500</td>
<td>3/4 in x (115)</td>
<td>4 3/4 in (120)</td>
</tr>
<tr>
<td>TCR 600</td>
<td>3/4 in x (115)</td>
<td>4 3/4 in (120)</td>
</tr>
</tbody>
</table>

For size variations or information please consult EMSEAL technical services.
Migutan FP110 and FP155 are unique designs incorporating side membrane sheets which integrate with the deck waterproofing system to form a continuous, completely watertight system. MIGUTAN is the only system of its kind with a 20-year track record and tens of thousands of feet installed and functioning. MIGUTAN is the most configurable, warranted, split-slab expansion joint in the industry.

- Watertight
- Exceptional durability under vehicular traffic and extreme weather conditions
- Can be used below grade or on decks
- Heavy-duty positive interlocking aluminum side rails
- Steel side legs available
- Stainless steel gland-retaining capping strips
- Sealing insert and side flashing sheet are heat-weldable thermoplastic rubber (TPR)
- Factory fabricated tees, crosses, directional changes, column details, terminations and changes in plane
- Leg heights from 1" (25mm) to 12" (300mm) as well as low leg height versions
- Available with integrated coverplate

The Migutan sealing insert and side flashing sheets are made of heat-weldable thermoplastic rubber. This ensures continuity of seal through transitions in plane and direction as well as at terminations. The flashing sheets are embedded in and encapsulated by the deck waterproofing membrane. The result is a static integration of the joint and the waterproofing that will not fail from cyclical movement across the joint.

The Migutan design provides watertight joints over occupied spaces below such as stadiums. It also provides for a pedestrian-friendly and accessible surface.

Leg heights from 1" (25mm) to 12" (300mm) accommodate pavers, asphalt, concrete and other wear-course toppings allowing for exceptional durability under vehicular traffic and extreme weather and temperature conditions.

Positive interlocking metal rails (or alternative stainless steel pins) eliminate misalignment between adjoining sections. This method has proven successful with tens of thousands of feet installed and functioning over the past 20 years. Factory-fabricated direction changes ensure continuity of seal.
Migutan FP110 / FP155

Migutan FP110

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Leg Height</th>
<th>Max. Joint Gap at Mean °F</th>
<th>Movement Range</th>
<th>Total Movement</th>
<th>Overall Width System at Mean Temp</th>
<th>Exposed Width System at Mean Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP110/25</td>
<td>1 in (25mm)</td>
<td>2 3/8 in (65mm)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/45</td>
<td>1 3/4 (45)</td>
<td>3 in (75mm)</td>
<td>+1 1/4 in (+30mm)</td>
<td>2 1/2 in (60mm)</td>
<td>9 3/8 in (237mm)</td>
<td>4 3/8 in (112mm)</td>
</tr>
<tr>
<td>FP110/60</td>
<td>2 3/8 (60)</td>
<td>3 3/4 in (96mm)</td>
<td>-1 1/4 in (-30mm)</td>
<td>2 1/2 in (60mm)</td>
<td>9 3/8 in (237mm)</td>
<td>4 3/8 in (112mm)</td>
</tr>
<tr>
<td>FP110/80</td>
<td>3 1/8 (80)</td>
<td>4 1/2 (115)</td>
<td>1 1/4 in (+30mm)</td>
<td>2 1/2 in (60mm)</td>
<td>9 3/8 in (237mm)</td>
<td>4 3/8 in (112mm)</td>
</tr>
<tr>
<td>FP110/95</td>
<td>3 3/4 (95)</td>
<td>4 1/2 (115)</td>
<td>1 1/4 in (+30mm)</td>
<td>2 1/2 in (60mm)</td>
<td>9 3/8 in (237mm)</td>
<td>4 3/8 in (112mm)</td>
</tr>
<tr>
<td>FP110/115</td>
<td>4 1/2 (115)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/130</td>
<td>5 1/8 (130)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/150</td>
<td>5 7/8 (150)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/165</td>
<td>6 1/2 (165)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/185</td>
<td>7 1/4 (185)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/200</td>
<td>7 7/8 (200)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/220</td>
<td>8 5/8 (220)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/235</td>
<td>9 1/4 (235)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/255</td>
<td>10 (255)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/270</td>
<td>10 5/8 (270)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/290</td>
<td>11 1/2 (290)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
<tr>
<td>FP110/305</td>
<td>12 (305)</td>
<td>4 1/2 (115)</td>
<td>See Below</td>
<td>See Below</td>
<td>9 in (225mm)</td>
<td>See Below</td>
</tr>
</tbody>
</table>

For size variations or information please consult EMSEAL technical services. Visit www.emseal.com.

For sizes above 150mm: intended for non-vehicular traffic plaza decks. Extra-high leg heights accommodate thick overlay systems and topping slabs. These models are supplied with extra-long (double-width) side sheets to ensure proper integration with deck waterproofing.

Migutan FP155

Model No. Available in same leg heights as the FP110 (see chart above)

Migutan FP155 is engineered for wider joint gaps. Contact EMSEAL for joint gap and performance specifications.

Typical Migutan Usage

In deck-to-deck applications, Migutan is ideal for plaza and podium decks, stadium concourses, arrival roadways, and anywhere waterproofed split slabs are designed.

Factory-fabricated corners and transitions are part of the Migutan system. Each change in plane or direction is constructed from field-supplied measurements to create a custom, watertight transition within the Migutan system or where the joint requirement changes to other EMSEAL technologies.
DSM-FP is a trafficable joint system for plaza decks & split slabs designed to straddle joint gaps up to 4-inches (100mm). DSM-FP expands the use of the DSM System to waterproofed split-slab deck designs through the use of side flashing sheets that integrate with the deck waterproofing membrane.

- Watertight
- Ideally suited to parking decks, stadium concourse, plazas, and other smaller-joint, waterproofed split-slab applications
- Exceptional durability under pedestrian traffic and extreme weather conditions
- Stainless steel flashing sheet capping strips
- Side flashing sheets are heat-weldable thermoplastic rubber (TPR)
- Factory fabricated changes in plane and direction
- Steel side legs available in many heights
- Aluminum or stainless steel coverplates available
- New construction or retrofit of failed older construction
- Movement of +50% and -50% (Total 100%) of nominal size

### DSM-FP Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>2 (50)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 1/4 (80)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

DSM-FP sizes are available in 1/4" increments in nominal sizes from 1" to 4". Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.
Emshield® DFR-FP is a single unit fire-rated trafficable joint system for plaza decks & split slabs designed to straddle joint gaps up to 4-inches (100mm). DFR-FP expands the use of Emshield DFR to waterproofed split-slab deck designs through the use of side flashing sheets that integrate with the deck waterproofing membrane. Emshield DFR-FP has been certified by Underwriters Laboratories (UL) to the rigors of UL and ULC 2079.

Installed entirely from the deck surface above — allowing for easier installation without compromising continuity of the fire-barrier from obstructions (e.g. columns, HVAC, electrical, plumbing, etc) DFR-FP provides a watertight, clean handling, UV stable, low-temperature-flexible, high-temperature-stable, traffic durable fire-rated joint seal.

- Watertight
- Ideally suited to parking decks, plazas, stadium concourses, and other smaller-joint, fire-rated waterproofed split-slab applications
- Built-in UL-certified fire-rating
- Exceptional durability under pedestrian traffic and extreme weather conditions
- Eliminates traditional need for fire-blankets or gutters
- Stainless steel flashing sheet capping strips
- Side flashing sheets are heat-weldable thermoplastic rubber (TPR)
- Factory fabricated changes in plane and direction
- Steel side legs available in many heights
- New construction or retrofit of failed older construction
- Movement of +/- 50% (Total 100%) of nominal size

**DFR-FP Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2</td>
<td>5 (125)</td>
</tr>
<tr>
<td>3/4</td>
<td>5 (125)</td>
</tr>
<tr>
<td>1</td>
<td>5 (125)</td>
</tr>
<tr>
<td>2</td>
<td>5 (125)</td>
</tr>
<tr>
<td>3</td>
<td>5 (125)</td>
</tr>
<tr>
<td>4</td>
<td>5 (125)</td>
</tr>
</tbody>
</table>

DFR-FP sizes are available in 1/16" increments in nominal sizes from 1" to 4". Nominal size is equivalent to joint gap size at mean temperature. Leg heights are available from 1-inch (25mm) to 3-inches (75mm).

**Typical DFR-FP Usage**

DFR-FP offers a fire-rated waterproof solution to split-slab deck-to-deck situations. Shown here in a 4-inch expansion gap bridged with a fire-rated expansion joint system. The split-slab connection incorporates an integral waterproofing flashing sidesheet embedded between layers of the deck waterproofing membrane on the structural slab and beneath the topping slab.

DFR-FP is an effective fire-rated watertight expansion joint which can bridge split-slab to solid-slab construction. The connection to solid-slab construction is made directly to the slab substrate. The split-slab connection is made to the DFR-FP mounting leg.
SJS-FP installation consists of the two sub-assemblies which make up the system. The mounting leg assembly and integral waterproof sidesheets are installed onto the structural slab and integrated with the deck waterproofing system. The watertight, precompressed SJS assembly is installed between the rails of the mounting leg assembly and then capped with an aluminum or stainless steel coverplate.

SJS-FP expands the use of the SJS System to waterproofed split-slab deck designs through the use of side flashing sheets that integrate with the deck waterproofing membrane. The system is made up of two sub-assemblies which include the structural-slab mounted supporting legs with integral waterproofing side sheets and the joint sealing and coverplate assembly.

- Watertight
- Ideally suited to stadium concourse, roadway, plaza, and other large-joint, waterproofed split-slab applications
- Exceptional durability under vehicular traffic and extreme weather conditions
- Stainless steel flashing sheet capping strips
- Side flashing sheets are heat-weldable thermoplastic rubber (TPR)
- Factory fabricated changes in plane and direction
- Steel side leg available in many heights
- Aluminum or stainless steel coverplates available
- No hard connection between coverplate and concrete substrate
- The quietest coverplate system available
- Self-locking, vibration dampened screws
- Movement of +50% and -50% (Total 100%) of nominal size

**Typical SJS-FP Usage**

The SJS-FP system features the addition of side flashing sheets which are fully encapsulated in a static, watertight integration with the deck’s buried waterproofing membrane.

**SJS-FP Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>2 1/2 (65)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>3 1/2 (90)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>5 (125)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>7 (175)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>9 (225)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>11 (275)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>12 (300)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>13 (325)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>14 (350)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>15 (375)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>16 (400)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>17 (425)</td>
<td>5 (125)</td>
</tr>
<tr>
<td>18 (450)</td>
<td>5 (125)</td>
</tr>
</tbody>
</table>

SJS-FP can straddle structural slab gaps from 1” to 24” in the topping slab, sizes are available in nominal sizes from 2” to 24”. Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.

Joints can straddle structural slab gaps from 1” to 24” in the topping slab. SJS-FP can be used with EMSEAL’s other waterproofing systems to create a complete waterproofing solution.

**Watertight configurations and factory-fabricated transitions and terminations are available for deck-to-wall and other conditions.**
The SJS-FP-FR System is designed to provide a UL/ULC-certified fire-rated, watertight, trafficable joint system for use in seismic and large joint openings in decks of split-slab design. SJS-FP-FR expands the use of the SJS-FR SYSTEM through side flashing sheets that integrate with the deck waterproofing membrane.

The primary use is for plaza decks & split slabs designed to straddle joint gaps from 4-inches (100mm) to 10-inches (250mm). SJS-FP-FR has been certified by Underwriters Laboratories (UL) to the rigors of UL and ULC 2079.

Installation is entirely from the deck surface above -- allowing for easier installation without compromising continuity of the fire-barrier from obstructions (e.g. columns, HVAC, electrical, plumbing, etc.)

- Watertight
- Built-in UL 2079-certified 1-hour or 2-hour fire-rating
- Eliminates traditional need for fire-blankets or gutters
- Exceptional durability under pedestrian traffic and extreme weather conditions
- Easy installation with non-invasive coverplate anchoring
- Side flashing sheets are heat-weldable thermoplastic rubber (TPR)
- Aluminum or stainless steel coverplates available
- Coverplate is easy to install with self-locating, vibration-dampening screws
- New construction or retrofit of failed older construction
- Movement of +50% and -50% (Total 100%) of nominal size

### SJS-FP-FR Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>5 (125)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>6 (150)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>7 (175)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>8 (200)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>9 (225)</td>
<td>6 (150)</td>
</tr>
<tr>
<td>10 (250)</td>
<td>6 (150)</td>
</tr>
</tbody>
</table>

*SJS-FP-FR sizes are available in 1” increments in nominal sizes from 2” to 10”. Nominal size is equivalent to joint gap size at mean temperature. Leg heights are available from 1-inch (25mm) to 3-inches (75mm).*

EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westborough, MA 01581 USA  
EMSEAL, LLC 111 Royal Group Crescent, Woodbridge, ON L4H 1X9 Canada  
PH: 508-836-0280  FAX: 508-836-0281  
PH: 416-740-2090  FAX: 416-740-0233
The DSM System used below grade is a durable joint-face adhered, precompressed primary seal for non-hydrostatic conditions. It combines hydrophobic-acrylic impregnated foam sealant with factory pre-coated silicone bellows. It is available as standard single-sided (DSM) or optional double-sided (DSM-DS).

- Watertight
- Used as a primary seal for exterior vertical below-grade walls for installation from the positive side
- Non-invasive anchoring
- Non-staining
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- 100% free of wax and asphalt
- Movement of +50% and -50% (Total 100%) of nominal size

**DSM Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>2 (50)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 1/4 (80)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

DSM sizes are available in 1/4" increments in nominal sizes from 1" to 4". Consult EMSEAL for larger sizes. Nominal size is equivalent to joint gap size at mean temperature.

For depth-of-seal of DSM DS contact EMSEAL.

**Typical DSM and DSM-DS Usage**

DSM installed below grade acts as an effective water barrier. Epoxy, backpressure and field-injected sealant bands hold the system in-place allowing for a permanent and easy to install solution. DSM (upper left) and DSM-DS (lower left) shown with exposed watertight bellows. Both can also be installed behind loop membrane and protection board (above right).

Now Available

DSM System

UNIVERSAL-90’s

Factory-Fabricated Transitions & Terminations

See page 21
The **BG System** is a heavy-duty, double-celled, extruded, heat-weldable rubber gland flanked by integral side flashing sheets. It is combined in the field with a waterproofing membrane and accessories offered by the waterproofing membrane manufacturer for use in blind forming conditions. The BG System is the only expansion joint system designed for blind side as well as positive side applications.

- Integration of the below-grade waterproofing membrane and expansion joint system on the positive side of the wall or floor
- Ensures movement at the joint gap is properly accommodated
- Sizes:
  - BG-0200: 2-3 inches | 50-75mm
  - BG-0400: 3-5 inches | 75-125mm
- Applications include:
  - Tunnel joints: Underside of floor-slabs, and continuing up and over wall and roof joints, blind-side and/or backfilled applications
  - Under the floor-slab and the walls of a blind-side formed foundation or tunnel
  - Walls of a blind-side formed foundation and backfilled below-grade walls

Once the BG system is installed to the mud-slab or lagging, concrete is cast to encapsulate the waterproofing membrane and BG resulting in an integrated watertight system which accommodates movement at the joint gap.

**Typical BG System Usage**

In this typical tunnel application, BG is used under the slab and up the blind-side formed walls. At the transition above the blind-side walls, BG wraps over the roof in softscapes on the freestanding walls and across the roof or plaza deck in hardscape wear courses.
EMSEAL RoofJoint, roof expansion joint, is a dual-seal, double-flanged, extruded thermoplastic rubber system for sealing expansion joints in roofs. Watertightness is achieved through positive integration with the roofing membrane and a purpose-designed system for transitioning between the joint in the roof and joints in walls.

Unique to EMSEAL’s RoofJoint is the double-level flange. This flange configuration facilitates multi-layered, watertight integration with the roofing membrane. The lower flange is welded or adhered to the roof membrane brought up to the joint. A termination bar and anchors mechanically lock the flange to the roof deck or blocking. The upper flange counterflushes the termination bar and underlying membrane ensuring that penetrations made by the attachment of the termination bar are completely sealed. The upper flange is further flashed to the roofing membrane by means of the roofing manufacturers’ standard flashing tape or by over-welding a strip of roofing.

**RJ-0200** for joint gaps of 2 to 3 inches (50-75mm) with movement capability of 2 1/2 inches (60mm).

**RJ-0400** for joint gaps of 3 to 5 inches (75-125mm) with movement capability of 5 inches (125mm).

**RJ-0600** for joint gaps of 5 to 7 inches (125-175mm) with movement capability of 7 inches (175mm).

**RJ-0800** for joint gaps of 7 to 9 inches (175-225mm) with movement capability of 9 inches (225mm).

- High movement
- Redundant sealing
- Double-level roof-membrane integration flange
- Redundant fastening—adhesion or welding & termination bar
- Heat welded transitions at tees, crosses, roof-to-wall, etc.
- Watertight transition to SEISMIC COLORSEAL wall joints
- Uniquely addresses wall joint to roof joint interface
- Available in TPV (to TPO) or NPVC (to PVC) for broadest liquid and sheet membrane compatibility
- TPV available in reflective white color
- NPVC available in black or reflective white color
RoofJoint solves the problem of a watertight transition from the roof to the wall expansion joint. The solution lies in the EMSEAL RoofJoint seated in the joint-gap, a factory welded downturn transition in the RoofJoint gland that is sealed at a ship-lapped 45-degree angle to mate with an interlocking factory-fabricated RoofJoint Wall Closure transition piece. The result is an integrated wall and roof expansion joint system that is watertight.

Solid-Wall RoofJoint Closure
This factory-fabricated transition piece is manufactured from EMSEAL’s Seismic Colorseal wall-expansion joint material. This single unit piece has factory-coated silicone bellows on the top and upper-back face for integration with Seismic Colorseal in the wall and Horizontal Colorseal as a secondary seal and insulator across the roof. The silicone-coated top side of the closure is shaped to match the underside of the RoofJoint extrusion.

The Solid-Wall RoofJoint Closure is installed before installing the RoofJoint. It is installed ¾” down from the roof deck or wood blocking surface. A sealant band of silicone is applied across the upper mating surface of the closure. The RoofJoint is then installed. The underside of the RoofJoint will mate with the top of the already installed closure.

Cavity-Wall RoofJoint Closure
Like the solid-wall closure, the cavity-wall RoofJoint closure is a factory-fabricated transition piece made from Seismic Colorseal. The difference is an extended, horizontal setback portion of foam to bridge the cavity from facade to structural backup wall. The sides of the “bridge” are additionally coated with silicone to seal them against moisture in the cavity and to constrain the lateral expansion of the foam into the cavity.
Submerseal®

Watertight Expansion Joint for Continuous Immersion in Chlorinated, Saline or Potable Water and Wastewater Environments

Submerseal® is a water resistant, joint-face-adhered, precompressed, primary seal for retrofit and new structural expansion joints and construction joints where continuous or intermittent immersion or contact with chlorinated water (up to 5 ppm), saline water, potable water or wastewater is planned. Typical applications include swimming pools, fountains, water parks, water features, water tanks, etc.

- Watertight
- Non-invasive anchoring
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- 100% free of wax or asphalt compounds
- NSF/ANSI STANDARD 61 compliant
- Resistant to chlorinated water (up to 5 ppm)
- Resistant to saline water
- Resistant to certain effluent concentrations* (contact EMSEAL)
- Bellows is never under tension during joint movement
- No blockout required
- Movement of +/- 25% (Total 50%)

Submerseal Sizing

<table>
<thead>
<tr>
<th>Joint Size at Mean °F</th>
<th>Depth of Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1/2 (12)</td>
<td>1 3/4 (45)</td>
</tr>
<tr>
<td>3/4 (20)</td>
<td>3 3/4 (45)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>2 1/8 (55)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>3 (75)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>3 1/2 (90)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>4 3/4 (120)</td>
</tr>
</tbody>
</table>

Submerseal sizes are available in 1/4” increments of nominal sizes from 1” to 4”. Nominal size is equivalent to joint gap size at mean temperature.

*For specific chemical resistance and expanded usage capabilities contact EMSEAL for additional submerged products and options.

Typical Submerseal Usage

Submerseal is manufactured to seal joints which come in contact with chlorinated and contaminated water as found in pools, fountains and wastewater treatment plants. Because its silicone surface meets NSF/ANSI Standard 61 it is applicable for potable water tanks and storage structures.

Hydrostatic Head Pressure Resistance

<table>
<thead>
<tr>
<th>Joint Size</th>
<th>Continuous Immersion Max. Allowable Liquid Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Feet (meters)</td>
</tr>
<tr>
<td>1</td>
<td>25 (10)</td>
</tr>
<tr>
<td>2</td>
<td>50 (10)</td>
</tr>
<tr>
<td>3</td>
<td>75 (5)</td>
</tr>
<tr>
<td>4</td>
<td>100 (3)</td>
</tr>
</tbody>
</table>

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.
QuietJoint® is colorized, versatile and ideally suited to fill gaps between the ends of permanent, semi-permanent, or movable partitions, head-of-wall and other conditions.

QuietJoint is supplied in uncompressed and slightly oversized 2-meter (6.56-foot) and also full-story 10-foot lengths. Installation of QuietJoint is quick and easy requiring no mechanical anchors or epoxies. When installed the material is compressed by hand and squeezed into the gap or opening. The internal backpressure of the material secures it to the joint faces.

The product is composed of a self-extinguishing, fire-retardant*-acrylic-impregnated foam, factory pre-coated with high-quality silicone. QuietJoint makes an excellent sound attenuator which will conform to slight irregularities of gap construction.

- Acoustic damping –
  STC rated 53 (in a STC 56 wall)
  OITC rated 38 (in an OITC 38 wall)
- Width sizes from 1” (25mm) to 6” (150mm)
- Thermally insulating (R-value 5.96/inch of depth)
- Quick, easy installation
- Non-invasive anchoring
- Wide range of standard and custom colors
- Conforms to joint gap irregularities
- Size switching accommodates joint gap variations
- UV-stable
- Clean-handling, non-staining
- Won’t suffer from compression set

* QuietJoint is fire-retardant and does not promote the spread of flame or smoke, however it has not been UL-tested for fire-rating.

When filling a gap as a single unit, 2-inch QuietJoint displays impressive sound attenuation capabilities - STC 53 in a STC 56 wall and OITC 38 in an OITC 38 wall. It also has an R-value of 5.96 for its 1-inch of depth.

When two units of 2” QuietJoint are installed from both sides of a gap the sound dampening capabilities increase - STC 72 in a STC 72 wall and OITC 60 in an OITC 61 wall. It also has an R-value of 11.92 for its 2-inches of depth.
QuickCover is a rapidly installed, elegantly simple, aesthetically versatile coverplate system for new and retrofit floor expansion joints.

- No visible coverplate screws
- No visible anchoring fasteners
- Flush with floor retrofit into old hardware of failed joint systems
- Covers and conceals cracked adjacent flooring
- Resists pedestrian and rolling point loads
- Install while occupied using simple traffic diversion
- Easily installed in new construction after flooring is installed and completed
- Cost effective
- ADA compliant bevel and coefficient of friction
- Rapid installation—new or retrofit
- No blockouts, recesses, or backfilling
- Aesthetically and practically versatile

**QuickCover Sizing**

<table>
<thead>
<tr>
<th>Joint Size at Mean T°F</th>
<th>Coverplate Width</th>
<th>Product Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
<td>Inches (mm)</td>
</tr>
<tr>
<td>1 (25)</td>
<td>4 (100)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>1 1/2 (40)</td>
<td>4 (100)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>4 (100)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>2 1/2 (65)</td>
<td>5 1/2 (140)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3 (75)</td>
<td>5 1/2 (140)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>3 1/2 (90)</td>
<td>7 (175)</td>
<td>2 1/2 (65)</td>
</tr>
<tr>
<td>4 (100)</td>
<td>7 (175)</td>
<td>2 1/2 (65)</td>
</tr>
</tbody>
</table>

QuickCover sizes are available in 1/4” increments of nominal sizes from 1” to 4”.

Consult EMSEAL. Nominal size is equivalent to joint gap size at mean temperature.
**Interior Products**

EMSEAL offers superior products for interior floors, walls and ceilings to suit a variety of conditions and aesthetic requirements. They are designed and constructed with the highest quality materials and are matched specifically for each installation application. Additional configurations and heights are available (consult EMSEAL). For a complete listing and CAD details of interior joint solutions please visit [www.emseal.com](http://www.emseal.com).

**Interior Floor Joints**

**MIGUTRANS FSFS Series** features heavy duty interlocking all-metal profiles for heavy point loads while the **Migutec FP Series, FGH Series and FV Series** are designed to bridge various width joint gaps utilizing a robust rubber sealing insert. Also available are **FN Series** in surface mount versions.

**SPJ Series** is made up of modular sections designed to handle seismic conditions. The **Twinsert Series**, is designed for joints sized to seismic conditions and provide solutions for extremely large joint gaps by permitting the insertion of the flooring materials as an inlay between rubber seals or metal inserts.

**Interior Wall (and Ceiling) Joints**

The wall (and ceiling) selections include easy to install snap-cover all-metal versions such as the **KF Series** featuring rapid spring-anchor fastening in a variety of joint sizes as well as the **FN Series** composed of metal and elastomeric covers.

**Fire-Rating Interior Joints**

Interior floor or wall expansion joints can be fire-rated when an Emshield UL-certified expansion joint is combined with another interior product. While Emshield expansion joints (WFR, SSW, DFR, SSF) are usually installed as a single expansion joint system, they can be placed in combination to create a dual assembly. The surface product should be backed in the expansion gap with an appropriate fire-rated Emshield foam product. Emshield **DFR** (pg. 18) can be placed under the following floor-mounted surface product series: **FP, FN, FV, FGH**, and **SFS**. The same holds true in walls where Emshield **WFR** (pg. 14) can be placed behind **FN** or **KF** series expansion joints. Consult EMSEAL for further information.

---

Standard CAD details are available online at www.emseal.com. For application specific CAD details contact EMSEAL directly.
**Interior Joints**

**Migutec FN 20/12**

*Joint sizes:*

3/4” – 1 1/4” (20 – 30mm)

*Movement:*

3/16” = + 1/8”, -1/16”

(5mm = +3mm, -2mm)

Floors / Walls / Ceilings

Alum/rubber

Surface mount

Standard load rating

---

**Migutec FN 35/15**

*Joint sizes:*

1 3/8” – 1 7/8” (35 - 48mm)

*Movement:*

3/8” = + 3/16”, -3/16”

(10mm = +5mm, -5mm)

Floors / Walls / Ceilings

Alum/elastomeric

Surface mount

Standard load rating

---

**Migutec FV 35/35**

*Joint sizes:*

3/16” – 1 1/4” (5 - 32mm)

*Movement:*

3/8” = + 3/16”, -3/16”

(10mm = +5mm, -5mm)

Floors

Alum/elastomeric

Recess mount

Standard load rating

---

**Migutec FN 50/20**

*Joint sizes:*

2” – 2 1/2” (50 - 65mm)

*Movement:*

5/8” = + 5/16”, -5/16”

(16mm = +8mm, -8mm)

Floors / Walls / Ceilings

Alum/elastomeric

Surface mount

Standard load rating

---

*EMSEAL offers an extended range of products. For more detailed information and drawings on any products please visit [www.emseal.com](http://www.emseal.com). For additional products and sizes please contact EMSEAL directly.*
Interior Joints

Migutec FP 55/35

Joint sizes:
1/2" - 2" (13 - 50mm)

Movement:
5/8" = + 5/16", -5/16" (16mm = +8mm, -8mm)

Floors
Alum/elastomeric
Recessed mount
Standard load rating

Migutec FGH 65/30

Joint sizes:
13/16" - 2" (20 - 50mm)

Movement:
3/4" = + 3/8", -3/8" (20mm = +10mm, -10mm)

Floors
Alum/rubber
Recessed mount
Standard load rating

Migutrans SFS 90/115/135

Joint sizes:
3/8" - 4" (10 - 100mm)

Movement:
SFS 90 3/4" = + 3/8", -3/8" (20mm = +10mm, -10mm)
SFS 115 1 1/4" = + 9/16", -9/16" (30mm = +15mm, -15mm)
SFS 135 1 1/2" = + 3/4", -3/4" (40mm = +20mm, -20mm)

Floors
Solid Aluminum
Recess mount
Heavy load rating

EMSEAL offers an extended range of products. For more detailed information and drawings on any products please visit www.emseal.com.
For additional products and sizes please contact EMSEAL directly.
**Interior Joints**

**Migutec KF 250 / KFE 251**
- **Joint sizes:**
  - 1/2” – 3 1/4” (13 - 80mm)
- **Walls / Ceilings**
  - Solid Aluminum
  - Surface mount

**Migumax SPJ 200**
- **Joint sizes:**
  - Up to 8” (200mm)
- **Floors**
  - Aluminum
  - Surface mount
  - Standard load rating
- **Movement:**
  - Thermal: 1 1/2” = + 3/4”, -3/4”
    (40mm = +20mm, -20mm)
  - Seismic: 1 1/4” = + 6”, -5 1/4”
    (285mm = +150mm, -135mm)

**Twinsert Series**
- **Joint sizes:**
  - Up to 24” (825mm)
- **Floors**
  - Solid Aluminum
  - Extra Heavy loading
- **Movement:**
  - Various

**QuickCover**
- **Joint sizes:**
  - 1” – 4” (25 – 100mm)
- **Floors**
  - Precompressed
  - Anchorless
  - Rapid Installation
- **Movement:**
  - Up to 100% (+50%, -50%)

**QuietJoint**
- **Joint sizes:**
  - 1” – 6” (25 - 150mm)
- **Walls and Windows**
  - Mass-loaded acoustic seal / Insulating
  - Fire-resistant / Sound Attenuating
  - Non-mechanical and non-metallic

*EMSEAL offers an extended range of products. For more detailed information and drawings on any products please visit [www.emseal.com](http://www.emseal.com). For additional products and sizes please contact EMSEAL directly.*
THE EMSEAL CHECKLIST

Name __________________________  Company __________________________  Date ________________

Phone __________________________  Fax __________________________  Email __________________________

Job Name ________________________  Job Location (City & State) __________________________

INSTALLATION LOCATION
- Interior [ ]  Exterior [ ]
- Wall [ ]  Floor/Deck [ ]  Roof [ ]
- Above Grade [ ]  Below Grade [ ]  Submerged [ ]

CONSTRUCTION TYPE
- New Construction [ ]  Retrofit Construction [ ]

FIRE RATING
- No Fire Rating [ ]
- Fire Rating: [ ] 1-hr [ ] 2-hr [ ] 3-hr [ ]

EXPANSION GAP INFORMATION
Joint Gap Width(s): __________________________
Varies from: ______ to ________ (over its length)

Have Gap Dimensions Been Field Measured? [ ] Yes / [ ] No
Substrate Surface Temp. _______  Ambient Temp. _______

Movement (if known):
(e.g., ± thermal; ± shear, etc.)

Joint is: [ ] Primary Seal  [ ] Secondary Seal

Substrate Composition: __________________________
(e.g., concrete, brick, metal, etc.)
Membrane Tie-in? [ ] Yes / [ ] No  Type ________
Metal Pour Stops? [ ] Yes / [ ] No

Joint Will Seal Out: [ ] Rain/Water  [ ] Cold/Heat
[ ] Sound  [ ] Air  [ ] Vermin  [ ] Other ________

How Does the Joint Terminate?

FOR HORIZONTAL DECK/FLOOR and ROOF JOINTS (ONLY)

Is this a Solid Slab Condition?
[ ] Yes / [ ] No

Is this a Split Slab Condition?
[ ] Yes / [ ] No

Does the Joint have Blockouts?
[ ] Yes / [ ] No

Traffic Types (check all that apply):
[ ] Car  [ ] Bus  [ ] Pedestrian  [ ] None
[ ] Other ________

Please fill in the slab width dimensions at each "x". If one substrate of your joint is a wall instead of a slab, please denote that "x" as "Wall" instead of giving a dimension. If more than one joint occurs within the same immediate area, please draw them and the appropriate dimensions. Attach additional drawings as needed.

Please include any relevant details when submitting checklist to EMSEAL

Architect: __________________________  Engineer: __________________________  Contractor: __________________________  Owner/Developer: __________________________

Please FAX or Email to EMSEAL  Fax: (508) 836-0281 / Email: techinfo@emseal.com / Phone: (508) 836-0280