



# MM<sup>®</sup> EMS Series Expansion Joint

## ElastoLok Membrane Sealing System

SPECIALTY DATA  
 MM Systems Corp. • 50 MM Way, Pendergrass, GA 30567 • 866.506.6929 • www.mmsystemscorp.com

### DESCRIPTION

ElastoLok Membrane System is a heavy duty expansion joint sealing system that prevents water intrusion through metal reinforced rubber panels that lock down the continuous wing of an elastoprene rubber seal into a setting bed of waterproofing sealant.

### BASIC USE

EMS is a watertight membrane sealing system designed for traffic bearing expansion joints in parking structures, loading docks, convention centers, warehouses and other structures with heavy traffic loads and extreme conditions.

### FEATURES

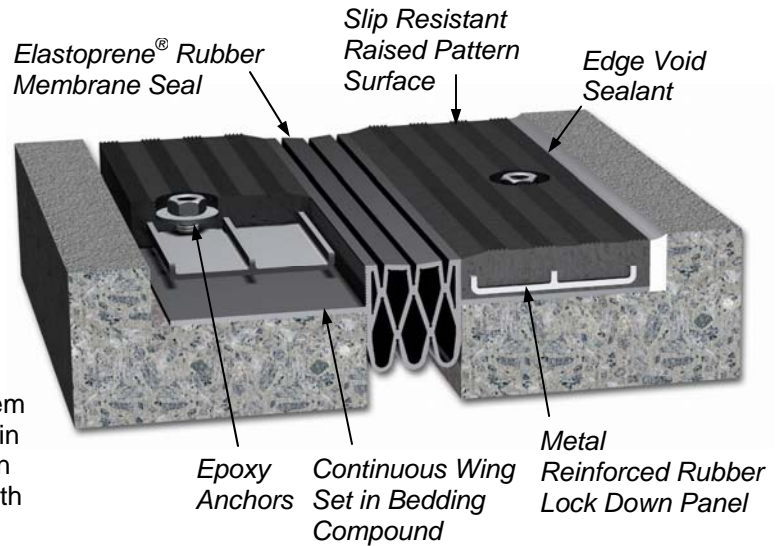
- Metal reinforced rubber lock-down panels with slip-resistant raised serrated pattern surface engineered for high impact loads.
- Continuous rubber seal with integral membrane wing that can be heat welded or adhesive bonded.
- EMS is an ADA compliant expansion joint system.
- Specialty bedding compound insures a watertight seal to the concrete deck.
- Resistant to UV, ozone, acid rain, most chemicals and extreme temperatures.
- Ideal for top decks with heavy snow loads and snow removal requirements (rubber tip blades).
- Designed for turning lanes, ramps, high volume traffic, fork trucks and buses.

### SPECIAL FEATURES

- Engineered for HS20 Loading.
- Capable of thermal, seismic, vertical and lateral shear movement.
- Fire Barriers - MM expansion joint systems are available with 2 - 4 hour fire protection ratings.

### LIMITATIONS

- Concrete blockouts must be properly formed, finished and have sound substrate.
- Surfaces must be dry, free of any laitance, curing agents or foreign matter.
- Install temperature must be 40°F and rising.



**Additional Safety Margin Movement capacity accommodates concrete shrinkage, vertical deflection and unexpected movement.**

### PACKAGING

MM Bedding Compound, Bolt Cavity Sealant and Edge Void Sealant are all the same material supplied in a 1.5-gallon container.

EMS Panels are supplied in 10-foot lengths shipped on pallets.

EMS Membrane Seals are supplied in longest possible lengths shipped on pallets or spools.

### STORAGE

All materials should be stored in a cool, dry location 60-80°F (15-27°C) prior to use.

### COLOR OPTIONS

ElastoLok is available in standard UV stable black.

### PRECAUTIONS

Use splash goggles and chemical resistant gloves to avoid prolonged or repeated skin contact with the bedding compound. Use with adequate ventilation. In case of eye contact, immediately flush (low pressure) with lukewarm water. In case of skin contact, immediately wash skin with soap and water. Read and follow labels and Material Safety Data Sheet before use.

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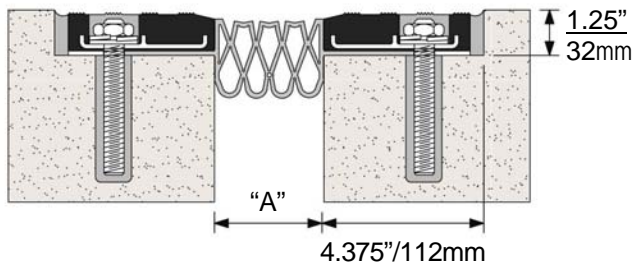
## SELECTION GUIDE

Model Number	Movement Range	Joint Opening "A"						Installation Width "A"			
		Thermal Minimum		Thermal Maximum		Safety Maximum		Minimum		Maximum	
EMS-250	<b>2.50</b> 64	<b>.750</b> 19	<b>2.50</b> 64	<b>3.25</b> 83	<b>1.25</b> 32	<b>2.25</b> 57					
EMS-350	<b>3.25</b> 83	<b>1.00</b> 25	<b>3.50</b> 89	<b>4.25</b> 108	<b>1.50</b> 38	<b>3.25</b> 83					
EMS-450	<b>4.00</b> 102	<b>1.50</b> 38	<b>4.50</b> 114	<b>5.50</b> 140	<b>2.25</b> 57	<b>4.25</b> 108					
EMS-550	<b>5.00</b> 127	<b>1.50</b> 38	<b>5.50</b> 140	<b>6.50</b> 165	<b>3.00</b> 76	<b>5.25</b> 133					

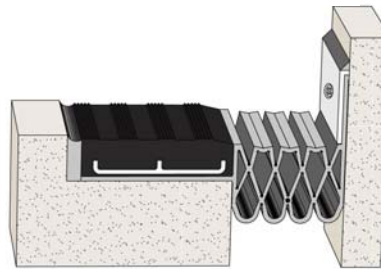
Dimensions are in **inches** (bold) and millimeters.

See web site for EMS-C Slab-to-Wall Movement Table.

**Safety Maximum** – Safety Margin Movement capacity accommodates concrete shrinkage, vertical deflection and unexpected movement.



EMS / Slab-to-Slab



EMS-C / Slab-to-Wall

## LIMITED WARRANTY

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

## PHYSICAL PROPERTIES

Physical Property	Test Method	Value
<b>Elastoprene-100 Rubber</b>		
Tensile Strength	ASTM D412	1000 psi
Ultimate Elongation	ASTM D412	445%
Hardness, Shore D	ASTM D2240	65 +/-3
Tear Strength @ 73°F (23°C)	ASTM D624	140 pli / 24.5 kN/m
Tear Strength @ 212°F (100°C)	ASTM D624	58 pli / 10.2 kN/m
Compression Set @ 168 hours	ASTM D395	25% @ 23°C/ 73°F
Compression Set @ 168 hours	ASTM D395	38% @ 100°C/ 212°F
Ozone Resistance	ASTM D1149	No Cracks
UV Resistance	ASTM D695	Very Good
Brittle Point	ASTM D746	-76°F (-60°C)

NOTE: The foregoing information is published as general information only. The listed properties and performance characteristics are approximate values while actual field results may vary.

## INSTALLATION

- 1) Remove and repair all unsound concrete in and around the blockout. All spalls must be repaired with compatible patching material.
- 2) Prepare substrate by sandblasting. The blockout must be clean and dry prior to installation.
- 3) Uncoil seal and allow it to relax in the sun for as long as possible before installation.
- 4) Install epoxy anchors using lock down panels as a spacing and location template.
- 5) Factory directional changes – splice seals into place (insert steel splice pins to align and reinforce butt splice connections).
- 6) Apply bedding compound over entire blockout bottom and 1 inch down each sidewall with a notched trowel.
- 7) Insert membrane seal into joint opening.
- 8) Install lock down panels over membrane wing.
- 9) Torque bolts to specification. Fill cavity with bolt cavity sealant. Fill edge void with sealant.
- 10) Install in accordance with detailed installation guide.

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

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Spec Data