



# MM<sup>®</sup> LMS Expansion Joint

## LokCrete Membrane Sealing System

SPECCATA  
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### DESCRIPTION

LMS is a waterproof expansion joint system with impact absorbing elastomeric concrete that bonds a continuous Elastoprene<sup>®</sup> membrane seal to the concrete deck. This creates a high performance monolithic sealing system that prevents water intrusion. The extended movement capability accommodates joint openings that become larger due to long-term shrinkage and creep.

### BASIC USE

LMS is designed for sealing traffic bearing expansion joint openings in parking structures, stadiums, plaza decks and other open-air structures requiring a watertight seal.

### FEATURES

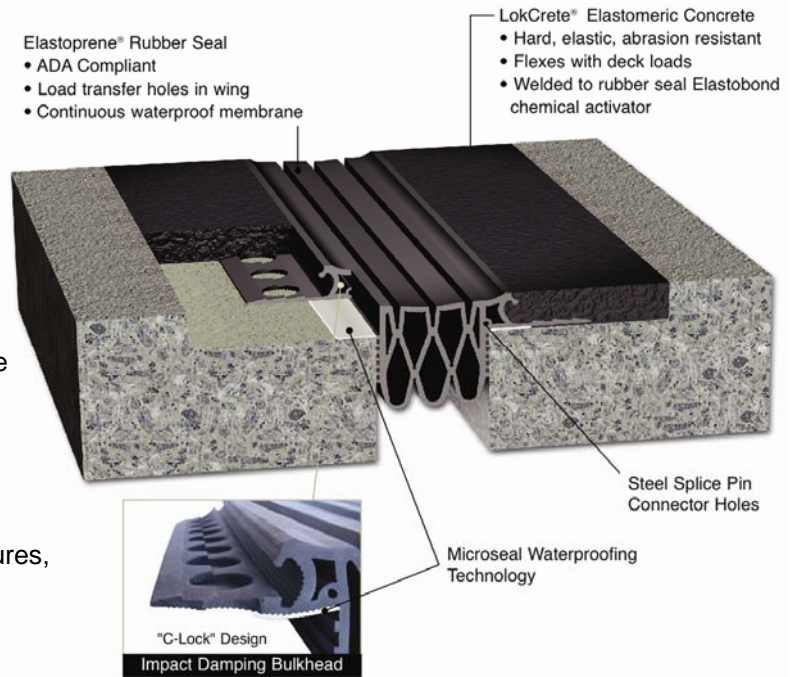
- LokCrete<sup>®</sup> - hard, elastic, abrasion resistant embed material that flexes with deck loads.
- 2-part polyurethane with chemical cross-linking technology eliminates the need for primers.
- System is integral with the concrete deck.
- Seal profiles are ADA compliant and can be heat welded or adhesive rubber bonded.
- Low profile seal design accommodates post tension cables and conduit.
- Capable of thermal, seismic, vertical and lateral shear movement.
- Exceptionally durable under vehicular traffic loads and extreme weather conditions.
- Resistant to UV, ozone, acid rain, most chemicals and extreme temperatures.

### SPECIAL FEATURES

- NO PRIMERS REQUIRED – bonds directly to concrete, aluminum and steel.
- Steel pin reinforced splice connections.
- Seal design contains tire impact dampener.
- 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

"Easy-mix" pre-measured packaging insures consistent field performance. LokCrete is supplied in 5 gallon plastic buckets. Parts A, B and C are pre-measured and self-contained within the bucket. (500 cubic inch yield.)

LokCrete 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

LokCrete<sup>®</sup> elastomeric concrete available in UV stable Black or special order Gray with matching Elastoprene<sup>®</sup> membrane color seal.

### PRECAUTIONS

Use splash goggles and chemical resistant gloves to avoid prolonged or repeated skin contact. 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.

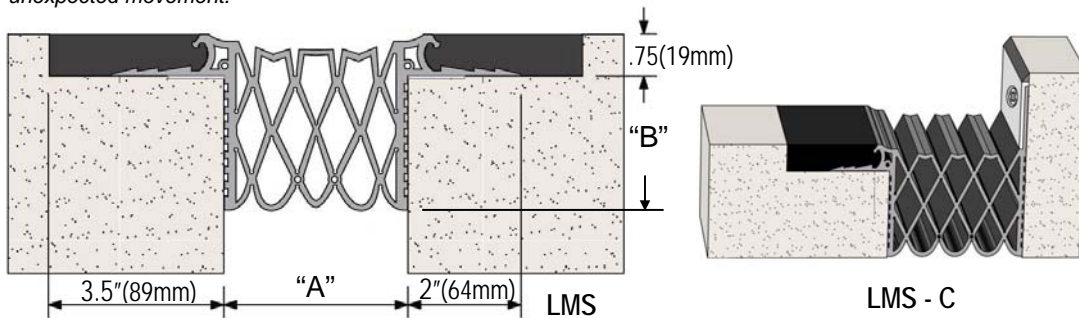
# MM<sup>®</sup> LMS Expansion Joint System

## SELECTION GUIDE

| Model Number | Movement Range  | Joint Opening "A" |                 |                 |                |                 |                | Installation Width "A" |  |         |  | Depth "B" Clearance |  |
|--------------|-----------------|-------------------|-----------------|-----------------|----------------|-----------------|----------------|------------------------|--|---------|--|---------------------|--|
|              |                 | Thermal Minimum   |                 | Thermal Maximum |                | Safety Maximum  |                | Minimum                |  | Maximum |  |                     |  |
| LMS-100      | <b>.875</b> 22  | <b>.375</b> 10    | <b>1.00</b> 25  | <b>1.25</b> 32  | <b>.500</b> 13 | <b>.750</b> 19  | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-150      | <b>1.25</b> 32  | <b>.500</b> 13    | <b>1.50</b> 38  | <b>1.75</b> 44  | <b>.750</b> 19 | <b>1.375</b> 35 | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-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  | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-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  | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-450LP    | <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 | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-450HD    | <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 | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-550-LP   | <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 | <b>2.50</b> 64 |                        |  |         |  |                     |  |
| LMS-550-HD   | <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 | <b>3.00</b> 76 |                        |  |         |  |                     |  |

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

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



## LIMITED WARRANTY

MM Systems warrants the LokCrete 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 Systems Certified Contractor.

## PHYSICAL PROPERTIES

| Physical Property               | Test Method | Value            |
|---------------------------------|-------------|------------------|
| <b>Binder Only</b>              |             |                  |
| Tensile Strength                | ASTM D412   | 4750 psi         |
| Ultimate Elongation             | ASTM D412   | 10%              |
| Hardness, Shore D               | ASTM D2240  | 78 +/-5          |
| Tear Resistance                 | ASTM D624   | 200 pli          |
| Water Absorption, max           | ASTM D570   | 3%               |
| Heat Shrinkage, max             | ASTM D1299  | 2%               |
| Compression Set                 | ASTM D395   | 48%              |
| <b>Binder &amp; Aggregate</b>   |             |                  |
| Compressive Strength            | ASTM D695   | 2750 psi         |
| Resilience @ 5% deflection      | ASTM D695   | 95%              |
| Impact Resistance -20°F (-29°C) | ASTM D420   | No Cracks        |
| Adhesion                        | ASTM D421   | Concrete Failure |
| Cure Time / Open to traffic     |             | 2- 6 Hours       |
| Cure Time / Chemical Resistance |             | 7 Days           |

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 breakout. All spalls must be repaired with compatible patching material.
- 2) Prepare substrate by sandblasting. The breakout must be clean and dry prior to installation.
- 3) Factory directional changes – splice seals into place (insert steel splice pins to align and reinforce butt splice connections).
- 4) Insert membrane seal into joint opening and mask-off deck and top of membrane seal.
- 5) Lift wing of LMS Seal and remove the release liner from Microseal Waterproofing Tape.
- 6) Brush-apply ElastoBond Activator to top of wing and sidewall of box bulkhead. (fuses LokCrete to seal)
- 7) Pour premixed A&B into a clean 5-gallon bucket. Immediately and gradually blend in Part C (aggregate). Mix all 3 components for 3 minutes.
- 8) Install temperature must be 40° F and rising and 5° F above the dew point. Maximum allowable concrete moisture content is 5%.
- 9) 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

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