



MM[®] EBS Expansion Joint

Epoxy Bonded Sealing System

SPEC DATA
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DESCRIPTION

EBS is a high performance expansion joint system with a continuous Elastoprene[®] rubber seal that is bonded in place with a thixotropic structural epoxy adhesive creating a watertight seal. The system is capable of multi-directional movement. The additional safety margin movement capability accommodates vertical deck deflection as well as joint openings that become larger due to long-term shrinkage and creep.

BASIC USE

EBS is a traffic bearing expansion joint for parking structures, stadiums, plaza decks, tunnels and bridges that require an absolute watertight seal. The system accommodates high-speed traffic, vertical offsets and ADA compliant pedestrian access.

FEATURES

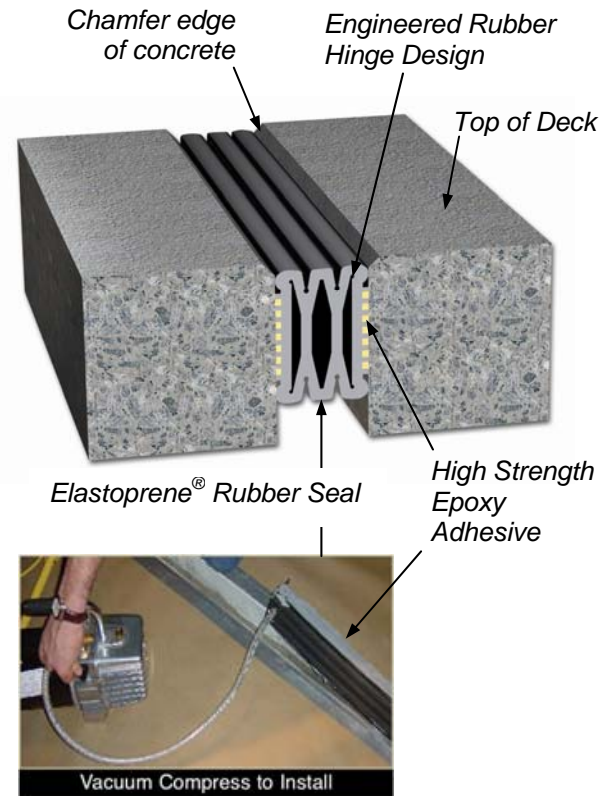
- No blockouts required.
- Capable of thermal, seismic, vertical and lateral shear movement.
- Tenacious thixotropic epoxy anchoring system bonds to concrete, aluminum and steel.
- System becomes integral with concrete deck.
- ADA compliant seal profile provides a pedestrian friendly walking surface.
- Exceptionally durable under vehicular traffic loads and extreme weather conditions.
- Resistant to UV, ozone, acid rain, most chemicals and extreme temperatures.
- Accommodates complex miters and changes in direction.

SPECIAL FEATURES

- Additional center cell accommodates long term shrink and creep that occur on concrete decks.
- Center cell acts as a rubber hinge and relieves stress at the epoxy bond line.
- Ideal for high-speed traffic and vehicular ramps.
- Elastoprene[®] Rubber designed for enhanced durability.
- Fire Barriers – MM Expansion Joint Systems are available with 2 - 4 hour fire protection ratings.

LIMITATIONS

- Concrete joint opening must be a uniform and parallel width along its entire length.
- Joint opening substrate must be sound, dry, and free of any laitance, curing agents or foreign matter.
- Install temperature must be 40°F and rising.
- Do not install in latex modified concrete.



PACKAGING

MM High Strength Epoxy Adhesive is supplied in Part A & Part B plastic containers. "Easy-mix" pre-measured packaging of 1 part black + 1 part white equals thoroughly mixed grey that insures consistent field performance.

Elastoprene[®] rubber 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

EBS is available in UV stable black or special order gray.

PRECAUTIONS

Use splash goggles and chemical resistant gloves to avoid prolonged or repeated skin contact with epoxy adhesive. 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. If swallowed, do not induce vomiting. Drink several glasses of water and call physician or poison control center. Read and follow labels and Material Safety Data Sheet before use.

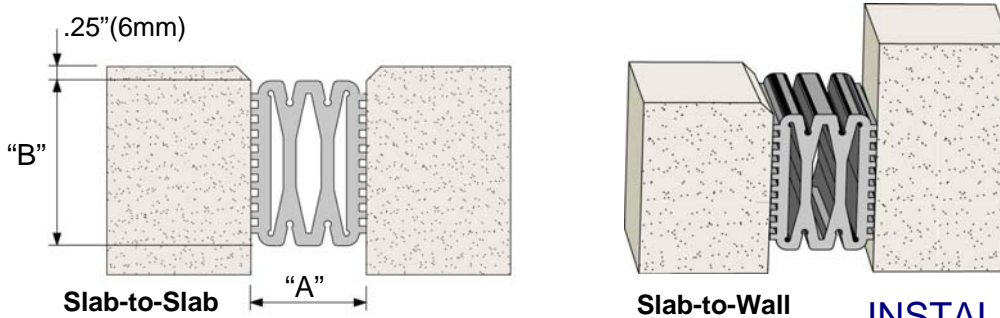
MM[®] EBS Expansion Joint System

SELECTION GUIDE

Model Number	Total Movement		Joint Opening "A"						Installation Width		Seal Depth "B"			
			Thermal Minimum	Thermal Maximum	Safety Maximum	Minimum	Maximum							
EBS-100	1.125	32	0.50	13	1.50	38	1.75	44	.75	19	1.25	32	1.475	37
EBS-150	1.75	44	0.75	19	2.00	51	2.50	64	1.00	25	1.75	44	1.875	48
EBS-200	1.75	44	1.25	32	2.50	64	3.00	76	1.50	38	2.25	57	2.625	67
EBS-250	2.625	67	1.375	35	3.50	89	4.00	102	1.625	41	3.25	83	3.00	76
EBS-300	3.50	89	1.50	38	4.50	114	5.00	127	1.75	45	4.25	108	3.00	76
EBS-400	4.5	114	1.75	44	5.50	140	6.25	159	2.00	51	5.25	133	3.00	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 Epoxy Bonded Sealing System to be free of defects in material and conform to technical data listed. 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	Typical Value
Elastoprene-100 Rubber		
Tensile strength	ASTM D412	1000 psi
Ultimate elongation	ASTM D412	445%
Hardness, shore A	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
Epoxy Adhesive		
Tensile strength	ASTM D638	1800 psi
Tensile elongation	ASTM D638	2-4%
Compressive Strength	ASTM D695	7000 psi
Hardness, Shore D	ASTM D2240	75 +/-5
Pot Life, @ 25°C (77°F)		40 minutes
Initial Cure / Complete Cure		24 hrs. / 7 days

Listed properties are approximate values - actual field results may vary.

INSTALLATION

- 1) Remove and repair all unsound concrete. Joint opening sidewall interface areas must be clean and dry prior to installation.
- 2) Prepare substrate by sandblasting just prior to application of the two-component adhesive.
- 3) Uncoil seal and allow it to relax in the sun for as long as possible before installation.
- 4) Joint opening must be blown with compressed air immediately prior to seal installation.
- 5) Clean and prepare sidewalls of the seal and joint opening interface per the installation instructions.
- 6) Apply a thin layer of the two-component adhesive to the sides of the seal (enough to fill the ribs) and to the sidewalls of the expansion joint opening.
- 7) Vacuum out air from inside of the seal to compress it and aid in its installation.
- 8) Position seal according to dimensional guidelines.
- 9) Release the vacuum allowing the seal to expand against the walls of the joint opening.
- 10) Refer to EBS Installation Guideline for detailed step-by-step instructions.

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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