



# MM<sup>®</sup> IVB Series

## Insulated Vapor Barrier

### DESCRIPTION

The Insulated Vapor Barrier system is engineered for expansion joint and other openings requiring insulated environmental protection. IVB is available with thermal values of R19, R25, and R30. The IVB system is a formaldehyde-free insulation blanket protected by a polyethylene smart weather wrap comprised of high-strength cord grids that help prevent tearing and punctures. The TriBlok™ smart technology is available with either a Semi-Impermeable (SI) breathable or Non-Permeable (NP)\* retarder to help manage water vapor transmission.

### BASIC USE

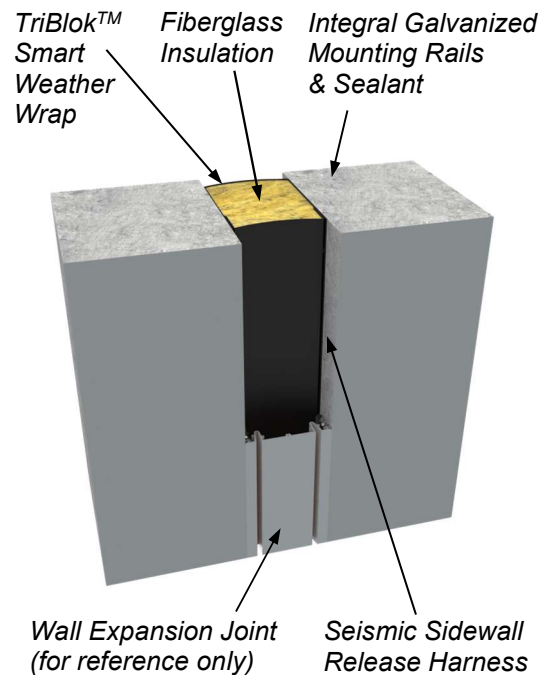
IVB is designed to provide both thermal and vapor management within structural openings that measure 1-inch (25mm) or larger. The engineered physical properties impede thermal temperature change and water vapor transmission through wall and roof cavities. IVB provides protection in a wide variety of architectural applications – brick, block, concrete, window-walls, metal panels, composites, and the like.

### PERFORMANCE FEATURES

- Available thermal R-values of R-19, R-25 & R-30.
- Repels water while providing interior air, vapor, dust, and acoustical transfer control.
- Retards vapor transmission with a choice of TriBlok™ Semi-Impermeable or Non-Permeable Smart Weather Wrap.
- Class A Rating restricts flame spread and the passage of smoke.
- Accommodates ± 50% movement including lateral shear and vertical displacement.
- Factory end terminations and directional transitions are available.
- TriBlok™ Smart Weather Wrap is comprised of a high-density polyethylene center and coated on two sides with low density polyethylene.
- The weather wrap fully encapsulates and protects the fiberglass insulation.
- Fungi-resistant fiberglass insulation exceeds Greenguard Gold Emissions Standards.

### SPECIAL FEATURES

- Integral male/female weathertight peel & stick seam strips for adjoining sections together.
- Suppresses and dampens sound transmission through structural openings by blocking and damping vibrations caused by sound energy.



Greenguard Gold Emission Compliance  
Certificate Number 55545-420

### PACKAGING

Shipped in cardboard cartons or wood pallets in 5-foot lengths for low-cost shipping and ease of handling.

### STORAGE & PROTECTION

All materials should be stored in a completely dry location prior to use. The IVB system must be kept dry before, during and after installation.

### LIMITATIONS

Adjacent construction should have thermal ratings equal to or greater than the rating of the IVB system for thermal transmission continuity.

### PRECAUTIONS

Use protective goggles and gloves. Read and follow labels and the Safety Data Sheet before use.

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## APPLICATIONS

The IVB system is compatible with all MM Systems expansion joint models. By example, the renderings below demonstrate how the IVB integrates in Exterior Façade Wall and Roof Designs.

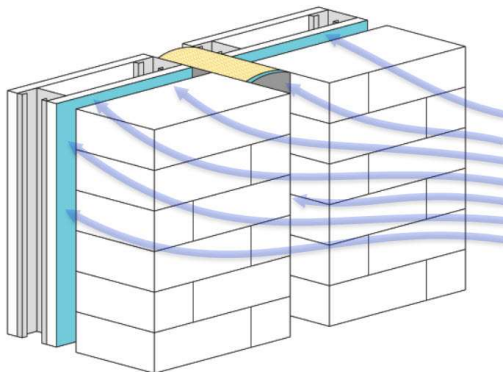


## PERMEABILITY OPTIONS

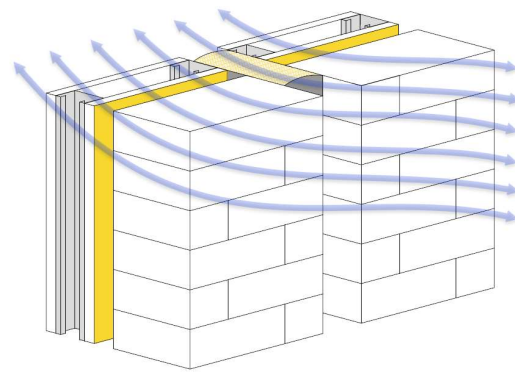
The IVB system is available with two different TriBlok™ Smart Weather Wrap permeability options.

- Semi-Impermeable 0.64 perms Class II (ASTM E96) breathable Smart Weather Wrap
- Non-Permeable < 0.1 perms Class I (ASTM E96) Vapor Retarder

Both options utilize a fungi-resistant fiberglass insulation with thermal R-values of R-19, R-25 & R-30.



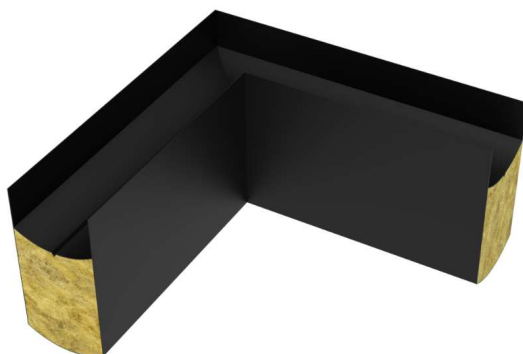
**Non-Permeable**  
*Minimizes diffusion of water vapor*



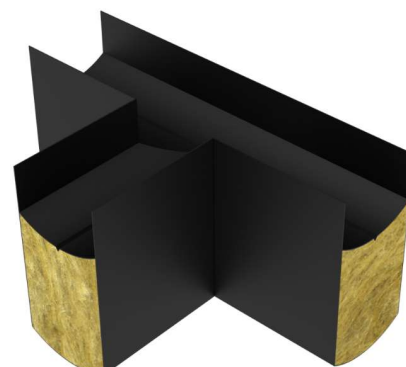
**Semi-Impermeable**  
*Allows diffusion of water vapor*

## FACTORY TRANSITIONS

Factory Transitions facilitate simplified assembly transitions for a wide range of site conditions such as wall-to-roof applications, changes in direction, and end terminations. Splice Pockets are not shown below (for clarity) but are included with peel and release flaps to adjoin Factory Transitions to standard 5-foot IVB sections.



**90-Degree Transition**



**Tee-Transition**

*(Many additional and custom transitions are available – contact MM Systems)*

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## THERMAL TRANSMISSION PROPERTIES

R-value measures resistance to heat flow. The American Society of Testing and Materials (ASTM) C 518-04, (Standard test method for steady-state thermal transmission properties by means of the heat flow meter) provides a rapid means of determining the steady-state thermal transmission properties of thermal insulations and other materials with a high level of accuracy. Available in thermal R-values of R-19, R-25, and R-30.

## JOINT OPENING SIZE CONFIRMATION

**SIZES:** Standard Widths are 1-to-20-inch nominal and Custom Seismic Widths are available.

Prior to installation always confirm that system sizes supplied will accommodate both the minimum and maximum joint width. Refer to MM Systems product drawings and project specific contract drawings. Too often expansion joint openings are sized without adjustment resulting in larger than anticipated openings. Not knowing the actual expected minimum and maximum joint opening may result in product failure or costly replacement orders if not properly sized.

## TECHNICAL DATA

### TriBlok™ Smart Weather Wrap

Material: High Density and Low-Density Polyethylene

Nominal Thickness: 6 mil (ASTM D1777)

Unit Weight: 3.5 oz/yd<sup>2</sup> (ASTM D3776)

Tensile Grab Strength: 119 lbf (ASTM D751)

Tear Strength (tongue): 65 lbf (ASTM D2261)

Mullen Burst Strength; 190 PSI (ASTM D751)

Life Safety: Class A Rating for Flame Spread [SFI] &  
Smoke Development [SDI] - (ASTM E84-94)

### Fiberglass Insulation

Thermal Resistance: ≥103% (ASTM C653)

Fungi Resistance: ≤ control item (ASTM C1338)

Water Vapor Sorption: ≤ 5% by weight (ASTM C1104)

Odor Emission: PASS (ASTM C1304)

Noise Reduction Coefficient: 1.05 (ASTM E423)

Heat Flow Resistance: R-19, R-25, and R-30

## INSTALLATION

- 1) IVB is supplied in 5-foot segments. Determine the quantity required for each joint run.
- 2) Adjoin segments together by inserting male flush ends into female splice pockets ends.
- 3) Remove splice tape release liner from seam strips on male end and cover with adjoining splice flaps.
- 4) Attach and secure the factory end caps to seal the barrier ends where each joint run begins and ends.
- 5) Insert IVB into joint opening (interior side label facing inward) sufficiently to fit expansion joint assembly.
- 6) Apply Flexible Seal Sealant (1/4" x 1/4" bead) between the integral mounting rail and the substrate on sizes over 6-inches wide. Sizes 6-inches and smaller use Microwaterseal Tape to seal the barrier to the substrate.
- 7) Secure mounting rail with anchors to inside of structural joint opening.
- 8) Refer to the IVB Series Install Guide for detailed step-by-step instructions.

## LIMITED WARRANTY

MM Systems warrants the IVB 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 onsite 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 the 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.

*\*Some industry language uses the word Impermeable interchangeably with Non-Permeable. For the purpose of this document, we are using Non-Permeable; however, we assume Impermeable and Non-Permeable to mean the same thing.*

*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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