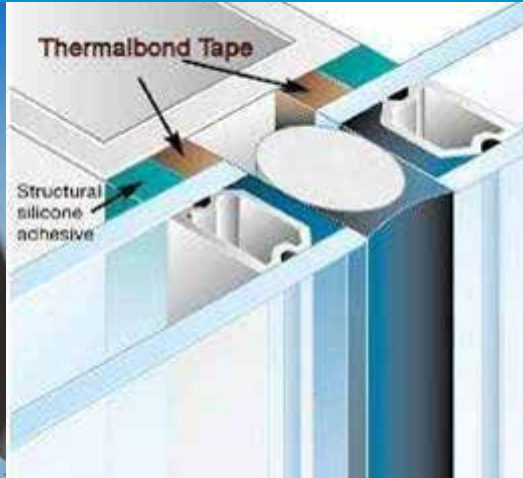
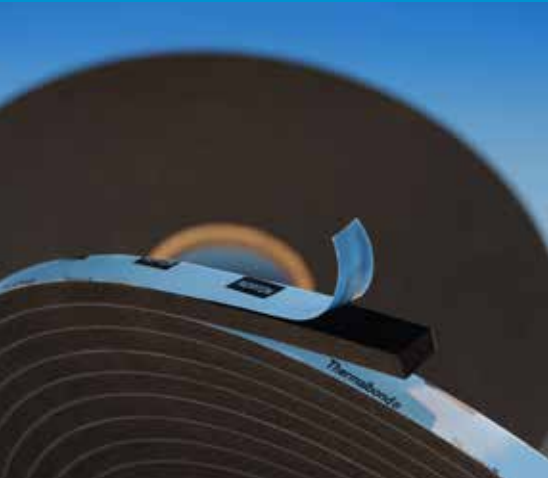


# Distinct Advantage

# Thermalbond® Spacer Tapes



## Water Vapor Transmission Rate (WVTR)

Structural Silicone Glazed (SSG) façade systems depend on the performance of the structural silicone to ensure the glass remains fixed in the aluminum or steel substructure for the life of the building. The structural silicone can be one-part silicone cure or two-part curing.

One-part materials contain all the ingredients needed to produce cured material. They typically use external factors, such as moisture in the air to initiate, speed and complete the curing process. They have the advantages of being lower cost and easy to use (no mixing), but require exposure to moisture and may take many days for complete curing.

Two-part systems segregate the reactive ingredients that are mixed during the application step. They are typically used for high-speed, high-volume operations. While they have the advantage of high-speed curing, they do require mixing with more sophisticated equipment and some formulation/application expertise.

In a typical SSG joint design, the structural silicone is in a captive section adjacent to the spacer tape. When one-part silicone is utilized, moisture needs to get to the silicone through the spacer tape. For this reason, Thermalbond® series spacer tapes are formulated with open cell structure.

Should a spacer tape be used with one-part silicone, extended curing time can be expected with the risk that full cure may not occur.

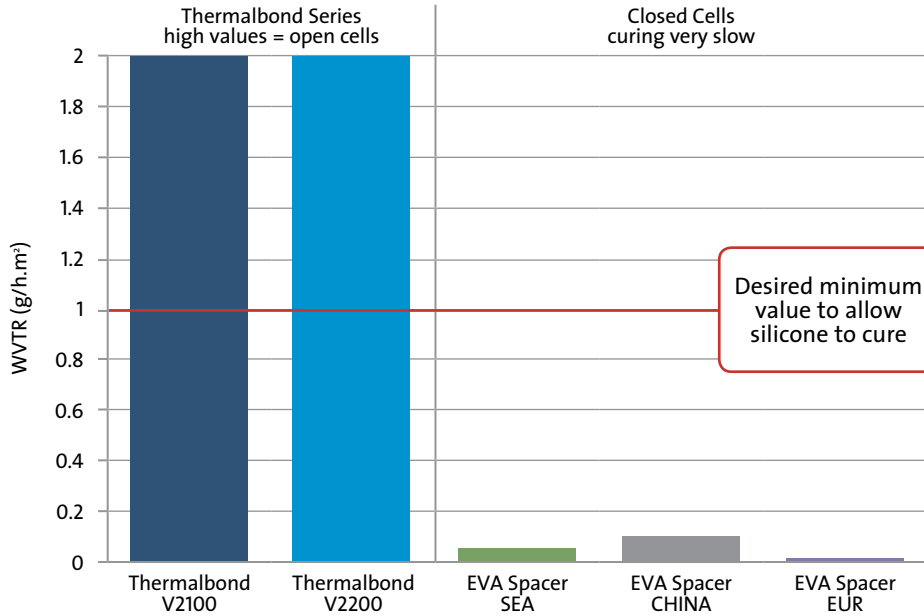
From Momentive UltraGlaze™ SSG4000 technical literature, SSG4000 “... should not be used, applied or is not recommended: In designs where the silicone is encapsulated and without access to atmospheric moisture (this material requires atmospheric moisture to cure from paste to rubber).”

## Thermalbond® Spacer Tapes

- Trusted by architects and specifiers for more than 35 years
- Open cell structure to optimize silicone curing
- Firm, high-density polyurethane foam cure ensures proper spacing
- Excellent weatherability properties

## Thermalbond® vs. Closed Cell EVA Spacer Tape

### Water Vapor Transmission Rate EVA Tapes

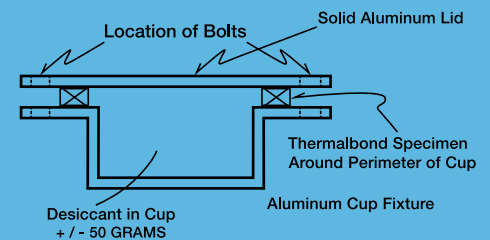


NOTE: EVA tapes from Asia and Europe markets

### Test Methodology

- In accordance with ASTM E96, procedure A
- Desiccant used for testing: Siliporite NK10AP
- All measurements performed at standard laboratory conditions: 23±2°C and 50±5% RH
- Samples compressed 10% for testing

#### Water Vapor Transmission Rate Fixture



## The Results

- Thermalbond series designed with open cell structure is supported by the high moisture vapor transmission rates shown by the testing.
- MVTR rates lower than 1 g/hr•m² indicate closed cell construction, which would prevent moisture from accessing the structural silicone to allow curing.
- The MVTR of the closed cell EVA tapes were all below 0.1 g/hr, clearly indicating closed cell construction. Curing of one-part silicone would be very slow, with the possibility of incomplete curing.

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