Advantage of warm edge spacer in Insulated glass

The material used to manufacture the glass spacer is one of the most important factors that deciding whether the windows are energy efficient or not. Glass spacers play an important role in a window’s overall performance, especially the thermal conductivity and thermal insulation performance, as they determine the amount of heat and cold that is able to pass through a window. The 2 or 3 lites of glass panels in insulated glass are held apart by spacers. The quality of the materials used to produce spacers, their longevity, flexibility and thermal properties are critical.

Good spacer should have 4 important roles:

- Absorb stress caused by thermal expansion and contraction
- Block moisture and water vapor that can fog glass
- Create a tight seal that prevents leakage of special gas fills
- Increase the temperature of the edges of the insulated glass – this can help reduce condensation and increase overall energy efficiency of the window

Traditional double-glazed windows used metal spacer, typically aluminum. Aluminum is an excellent conductor of heat. During winter it conducts cold and makes the edges of the glass even colder. This decreases overall U-Factor of the window making it less energy efficient. In addition to the increased heat loss, the colder edge is easy to cause condensation. Aluminum spacer is usually square-shaped. This inflexible shape is typically a major reason for seal failures.

Warm edge spacer is new products that has low thermal conductivity, the advantage of warm edge spacer used in insulated glass and windows are:

**Reduces Sealant Stress**

Super Spacer’s thermoset polymer material expands and contracts and always returns to its original shape. Super Spacer sealed IG units last up to five times longer in durability tests than conventional single seal units.
Improves Heat Flow Resistance
The all-foam formula blocks heat transfer and provides one of the best thermal performances available. Super Spacer resists heat flow 950 times more than that of aluminum. This means lower energy costs, less condensation/frosting and reduced chances for mold growth.

Improves Glass Surface Temperature
Super Spacer’s extremely low thermal conductivity means less variation in the surface temperature of the insulated glass unit.
Super Spacer units withstand 140°F/60°C temperatures, 95-100% humidity and constant UV bombardment in the world’s toughest durability test – The P-1 chamber.

Improves Sound Absorption
The closed-cell polymer foam in Super Spacer transmits very little sound compared to conventional aluminum spacers.
Acoustical laminated glass, Super Spacer and varying thicknesses of glass are recommended wherever noise from airplanes, trains or automobiles are a concern.
**Improves Condensation Resistance**

Mold needs moisture to grow. Moisture can increase the likelihood of fungi, viruses and mites that can cause infections, allergies and asthma. The significantly reduced interior condensation or frosting means that the health problems associated with mold may be virtually eliminated.

Morn offer insulated glass with all kinds of warm edge spacer, such as Technoform, Lisec, quanex, Superspacer, for higher energy savings and greater comfort. Choose please let us know what technology works for you and become your warm edge spacer insulated glass supplier in China.

Tags: Thermal conductivity, insulated glass, thermal insulation, warm edge spacer, warm edge spacer advantage, glass spacer, energy efficient windows, double-glazed windows, aluminium spacer, warm edge spacer insulated glass
About Morn Building Materials:

Morn Building Materials Co., Ltd is a trading company offering the right facade materials for a wide range of applications for architectural, design, and system requirements. Cooperating with China premium glass fabricators, Morn is able to supply whatever glass products applied in facade, Spandrel, roof, handrail, partition, balustrade, canopy, greenhouse, sun room, interior exterior application.

Other facade materials: Aluminium alloy profiles, aluminium plates, aluminium windows & doors, Assa Abloy hardware, spider fitting, railing systems, shower rooms, polyurethane panels, machines & tools, steel structure, are also available since 2019. From aesthetics, to strict environmental and energy specifications, to critical budget and delivery requirements, our input can make a difference.

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