Thermal Barriers In Action!

Thermal Barriers

Thermal Barrier -



Dry Ice at -109°F



Custom Made for Your Home

What is a Thermal Barrier aluminum window?

In addition to having double-paned insulated glass, along with other performance options such as Thermal Low-E, Thermal $E+^{TM}$, tinting or argon gas, a Thermal Barrier window offers another important benefit. The window frame and sash frames are insulated against heat and cold conduction. This is done by separating the inside metal parts from the outside with polyurethane, greatly reducing the amount of heat or cold transferred through the window. This important feature is known as a **thermal break** or **thermal barrier**.

How does a Thermal Barrier window perform?

Thermal Barrier windows are manufactured from close-tolerance aluminum extrusions. They have lower air leakage and much better resistance to heat and cold transfer than single-paned windows. Thermal Barrier aluminum window performance is equal to or better than wood or vinyl windows.

Thermal Barrier aluminum windows surpass strict industry specifications. Air leakage with a 25MPH wind blowing outside cannot exceed 0.30 cubic feet per minute (CFM) for each foot of weatherstripped window perimeter. Our 500 Series Single Hung window allows air infiltration of just 0.08CFM. Old windows often have rates as high as 1.50CFM, more than <u>18 times</u> as much as our Thermal Barrier aluminum windows!

Do Thermal Barrier windows prevent condensation?

There is no such thing as a condensation-proof window. Even walls will "sweat" when humidity is too high. Windows do not cause condensation; they simply prevent moisture from escaping and provide a surface that allows condensation to be seen. If interior surfaces on a Thermal Barrier window show excessive moisture, it is very likely that moisture is also present in the walls and ceiling.

What is the recommended interior humidity level?

The maximum recommended interior relative humidity ranges from 15% at -20°F to a maximum of 40% at 30°F (*see chart below*). Many homes have been built "tighter" to conserve energy, trapping indoor humidity. The best way to handle high indoor humidity is to vent it to the outside. Bathrooms, kitchens and laundry areas should be vented with a fan or by opening windows slightly when the areas are in use. If that does not help, a dehumidifier might be necessary.



www.thermalokc.com email: okcsales@thermalwindows.com

(800) 259-7580

email: info@thermalwindows.com