



Why and When to use Insulating Blinds



Insulating blinds are the “honeycomb” (when viewed from the side) shaped blinds that when retracted squeeze up into a folded accordion shape. The air pockets in the honeycombs provide insulation. In addition, the interior surface of the combs can be lined with a reflective material that reflects Infrared radiation (heat) back into the room in the winter and heat back out the window in the summer.

They are a good value that when used properly pay for themselves (the incremental cost above standard blinds is paid for by the energy savings) over the life of the blinds. If one assumes a 15-year life of the blinds the value is a “wash”. If one can get more life out of them then that is more money in your pocket. This analysis assumes the insulating blinds are drawn down at night and during workdays.

They look great and the incremental cost above regular shades isn't a lot of money.

Perhaps their biggest value is comfort. Sitting by a window in the depths of winter can be uncomfortable because of the radiant heat loss one experiences to the cold outdoors. Insulating blinds eliminate that and allow you to regain that space. It is definitely worth a test try. Purchase a set of insulating blinds for the window near your favorite “reading” chair. Install them and try reading a book on a cold winter day with the shades up (burrrrr) and with them down (cozy).



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There are certain times though that insulating blinds do not work.

- Spaces with high humidity levels (washrooms and kitchens, green houses and highly humidified houses).
- In direct sunlight.
- Poor window pockets.

Why?

High Humidity Levels

Insulating blinds (when drawn) prevent heat from escaping out the window. This means that heat which would normally reach the window doesn't. Consequently, the window is cooler and cold surfaces allow condensate to form in humid air conditions. Normal relative humidity levels in houses that do not humidify in Canada in the winter hover around the low 20s. Humidified houses hover around 30 % rH. Greenhouses around 50% rH. Standard double glazed windows in humidified spaces will allow condensate (sweating) at temperatures below around -25. We generally want to avoid those issues. Add insulating blinds and the problem increases. So consequently insulating blinds are not recommended for kitchens, bathrooms, greenhouses and houses that humidify significantly.

Direct Sunlight

Insulating blinds work great. Sometimes too much. If insulating blinds are installed in windows that receive direct sunlight (think a late afternoon western exposure), they can retain so much heat between the window and blinds that the heat can cause pressure to build in the gases between the window panes and cause the window seals to fail. Failed window seal generally allow the humid interior air of the house to enter between the window panes and condensate can form in the winter (i.e. window failure). This type of failure is not covered by a window warrantee so avoid putting insulating blinds in direct sunlight for extended periods of time. These are generally western exposures where the late afternoon sun shines directly into the windows for a few hours and even southern exposures in the winter time when the sun is low in the sky. Eastern exposures are less problematic as the house component temperatures are lower at that time of the day.

Poor Window Pockets

Insulating blinds are generally fitted into the window frames. Not all windows have a deep enough frame to accommodate insulating blinds or there may be hardware like the crank on a casement window that interferes with the installation space. There are work arounds (extend the window frames or removable or foldable cranks). But these are generally only for the keeners.

I recommend testing a window in an elevation for a year to confirm the performance before buying insulating blinds for that entire elevation.

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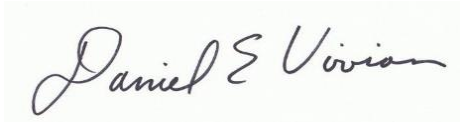
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Where do you get insulating blinds? The company I like is Symphony blinds from Williston Vermont. They have pages of great information about their blinds on their website. Plenty of options, technical resources (R values for various options) and instructions on ordering and installation.

If you're having trouble selecting from the overwhelming number of choices. Choose the single row of opaque honeycomb insulating blinds and add the sliding track option. This is the best value and they work to block out the sun if you'd like to sleep in.

Yours very truly,

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