

## Glass Installation Instructions

The glass we sell is called replacement patio door glass. It comes without sash, which means there is no wood or metal frame around it. It is manufactured by placing a bead of sealant around the outside one-half inch of a pane of tempered glass. A stainless steel channel is placed on top



to form a thermopane with a sealed airspace in the middle. The entire unit then gets a second seal made of silicone rubber.

We recommend installing your glass vertically to avoid the many problems of leakage and over-heating sloped glass causes. If you are determined to use sloped south-facing glass (for instance, in a place used primarily to grow plants or a space closed off from the house), you may consult us for further directions. We will not warranty the seals in sloped application! Many builders in the northern zones feel they must slope their glass to maximize winter solar gain. However, most cold areas of the country have snow cover during the winter months. This snow cover provides a very efficient reflective surface, which in turn dramatically increases solar gain on sunny days. However, as the south-facing glass is tilted away from vertical in a sloped installation, it allows less and less transmission of this reflected light, and in turn lowers the total solar gain.

To calculate rough openings for our insulated glass, use the following formula:

RO Width = Glass Unit size + 1/2"

RO Height = Glass Unit size + 2"

The additional 2" in height allows for a sub sill of 1½" thick cedar or redwood to be placed beneath the glass, to minimize the chances of water damage and rotting over the years. The other 1/2" addition to glass width and height is to allow room for glass expansion on sunny days. It is extremely important to allow space for the glass to expand unhindered!

The drawing on the right shows a vertical glass installation detail. The glass may be installed from the inside or the outside of the structure. After the sill is in place, the glass stop is applied to the outside (if the glass is being set from the room side, or vice versa if the glass is being set from the outside.)

Then the setting blocks are set on the bottom side of the opening, using two blocks if the long dimension of the glass is vertical, or three blocks if the long dimension of the glass is horizontal. Saw kerfs 1/4" in depth on the underside of the outer piece of glass stop will provide weep channels to drain the air spaces between the rubber setting blocks. **THIS IS IMPORTANT!** If the space

under the glass fills with water so as to immerse the glass seal constantly, the 10 year warranty will be void, as this condition will make premature seal failure very likely. If you use two setting blocks, there should be three weep channels (one for each space under the glass) and if three setting blocks are used, there should be four weep channels.

