

Why is my skylight full of frost?

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Skylights in a cold climate always cause problems trying to get insulation on the portion of the skylight frame that is above the roof. The more insulation you design into the frame, the smaller the light opening in proportion to the size of the skylight itself, simply because the frame that the skylight sits on has to be thicker. Slowly, manufacturers are addressing this problem, but most existing skylights installed in the cold of Canada were designed for the warmth of California. In addition, where your roof will hold large snow loads, many skylights will either be covered in snow part of the year (with all the ice problems that brings), or they will have to be installed on large built up curbs in order to keep the glass above the snow pile.

The deeper the well below the skylight, the worse the condensation and perhaps frost problems because hot moist air gets stuck up in this tunnel. Fans that move that air can help, but the best solution I have found for a cold climate is to install a frame around the inside of the well close to the ceiling level, and then every winter install a special well weather-stripped pane of glass or clear plastic to prevent any moisture from reaching the skylight. That creates a warm but dry air space between the household moisture and the cold skylight frame. This extra layer of glass can be removed in the spring for cleaning and to allow you to use the skylight for ventilation if it is a ventilating type. This is particularly important for skylights in bathrooms and kitchens, where you have much more moisture around to drip down from the skylight.

Keywords:

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