

# **Different thermal pane window spacers**

Last Updated: Sunday, September 16th, 2012, Created: Saturday, February 14th, 2004

Peggy is moving from Calgary to Vancouver and in her new province she says she can't locate the SuperSpacer windows that she loved in Calgary. That brings up the whole question of what are different window spacers, and why some are available in some areas of the country and not others. Thermal pane windows are windows with two or more pieces of glass (or sometimes plastic sheets) separated by spacers to keep them apart. The spacer serves several functions: it holds the glass in place under all kinds of pressures; it seals the space between the windows from any moisture intrusion, or gas escape; it usually contains a material which will dry out any moisture caught between the panes during manufacture. Thermal pane windows fog up when the seals associated with the spacers loose their seal. The original spacers were as in the first photo, and many windows today are still made this way in milder climates, like Vancouver. For colder climates, the aluminium frame of the spacer had a tendency to conduct too much cold, causing condensation and frost on the window surface inside the house. Hence the hunt was on for ways to keep spacers strong and well sealed, while making them less conductive to heat transfer. All four of the other spacers shown are currently available on the market, with better and better thermal performance as you move through the graphics from left to right. Of course, they cost more too, which is why the less performing ones are still available in areas where it is not so cold. The last photo, the Intercept, is the first spacer to really take into account the tendency of the two panes of glass to bow in towards each other during cold spells. By making it in a 'U' form, the spacer and the seals bow with the glass, making for less stress and longer life for the seals.

**Keywords:**

Condensation, Structure, Glass, Windows, Thermal Bridging, Seals, Spacers, Frost, Energy Conservation

**Article 2015**

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