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Outdoor Condensation on Glass

At the sight of condensation on the exterior of a window, homeowners often become very concerned. However, given specific atmospheric conditions and especially in late summer and early fall, this phenomena is natural and predictable. It is during this time of year that the temperature on the exterior surface of your window falls below the dew point temperature. Combined with high relative humidity, and a clear, still night condensation will form on well-insulated glazing because the inner-most surface of the glass remains much warmer. The outdoor surface of the glass radiates heat away to the night sky such that the glass temperature falls below the dew point of the ambient air. When this occurs, moisture from the air condenses on the glass surface. Only when the glass temperature rises above the dew point will the condensation evaporate back into the air. Low humidity and the presence of wind will prevent condensation from forming at all.

A low-e, high performance glazing unit provides a much higher level of insulation than the window technology from preceding decades. Today's high-performance windows prevent the flow of building heat loss through the glass and impedes the ability of the outermost glass surface from warming up above the dew point. In fact, if condensation is forming on your high-performance glazing, be reassured that this phenomena is simply proof that very little heat from inside your home is escaping through the windows.