



# ENERGY EFFICIENT

WINDOWS AND PATIO DOORS



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HIGH PERFORMING ENERGY OPTIONS  
FOR A COMFORTABLE HOME

# Energy Efficiency

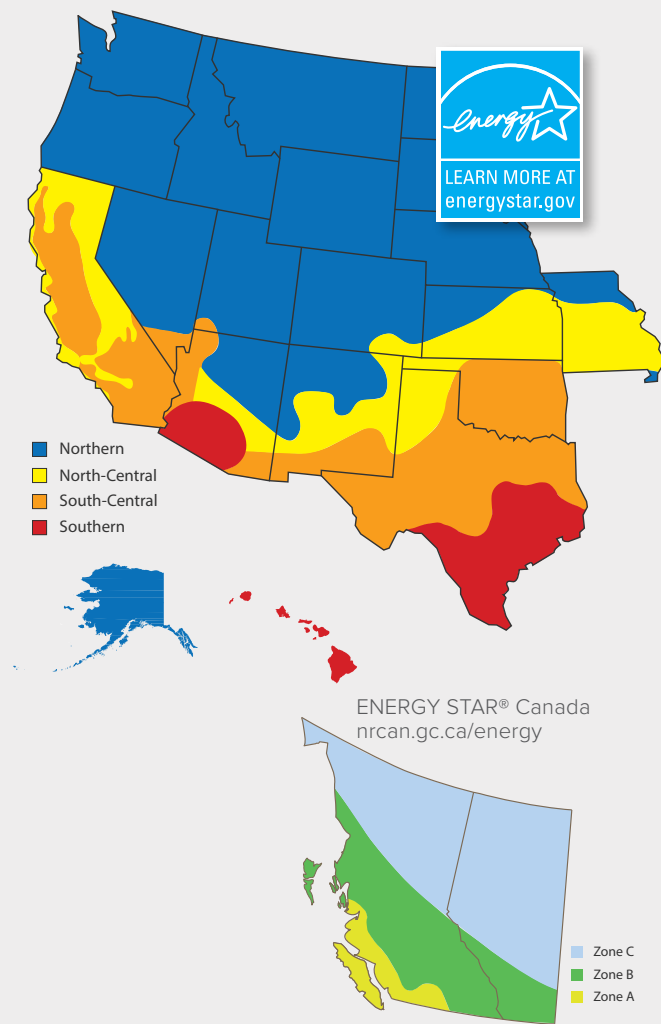
## Windows and Doors for the Energy-Conscious Homeowner

At Milgard, we help homeowners make an impact on their energy consumption through our energy-efficient windows and patio doors. Leaky and inefficient windows, skylights and doors account for poor insulation and higher energy usage in households. Energy loss can happen in two ways and a lot depends on where you live:

- Cold climates lose energy in the form of heat
- Hot climates lose energy in the form of cooling

## Tested and Built for Your Climate

All Milgard windows and patio doors are designed to meet tough thermal and solar requirements of state and local jurisdictions. We conduct thermal simulations to improve energy performance in our windows and patio doors so our consumers can enjoy a more comfortable home. We make it easy to meet local energy codes and green building efficiency standards with a selection of performance enhancing features. In fact, Milgard has options available to tailor the components of windows and doors to specific climates—perfectly matching the product to your region's energy needs.



Milgard adheres to ENERGY STAR® v6 requirements to meet or exceed U-Factor and Solar Heat Gain Coefficient (SHGC) criteria for the zones shown.

Milgard also offers high energy performance options for the ultimate in energy efficiency.

Zone	U-Factor	SHGC	Dependent on your climate, your energy efficient windows may include one or more of the following features.
ENERGY STAR v6 Northern	0.27	-	SunCoat® or SunCoatMAX®
ENERGY STAR v6 North-Central	0.3	0.4	EdgeGardMAX®
ENERGY STAR v6 South-Central	0.3	0.25	Argon or Krypton
ENERGY STAR v6 Southern	0.4	0.25	4th Surface
R5	0.20		Triple Glaze

# The Components



Dual Glaze



Triple Glaze

Your Milgard Dealer will guide you to find the best energy efficient features for your home and your climate.

**Dual and Triple Glazing** - Many older windows were built with a single pane of glass. Energy efficient windows use dual or triple pane glass (or glazing) to better insulate and help reduce energy usage in the winter and protect against heat build-up during the summer. Triple glazing adds a third layer of glass that improves insulating properties, keeping homes in northern regions warmer.

**SunCoat® and SunCoatMAX® Low-E Glass Coatings** - Low-E means 'low emissivity' and describes glass that has a solar control coating to improve thermal performance. Glass coating technology has helped create more energy efficient windows. A thin coating is applied to one side of the glass to reflect heat toward the outside in the summer and keep heat inside the building in the winter. As a result, homes with Low-E glass windows and doors enjoy more consistent temperatures year-round for comfort and energy savings. Carpet and furniture are also better protected against UV rays and color fading. Milgard SunCoat is Low-E2 and SunCoatMAX is Low-E3 giving you better levels of protection.

**4th Surface** - 4th Surface turns double-pane windows into triple-pane performers. It's a durable TCO (Transparent Conductive Oxide) coating that enhances the U-factor of the window by reflecting heat back into the home. 4th Surface provides energy performance levels in a Dual Glazed insulated unit that previously were only attainable with our Triple Glazing option. It also offers more light transmittance and less reflectance than triple glazing.

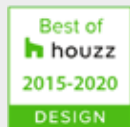
**Spacers** - A spacer keeps a window's dual glass panes the correct distance apart for optimal insulation between panes. Too much or too little air space can affect the insulating glass efficiency.

**EdgeGard® and EdgeGardMAX® Spacers** - Traditional aluminum box spacers use desiccant and sealant between two panes of glass to provide insulation. With a more advanced design, Milgard EdgeGard window spacers provide superior insulating properties and helps to reduce condensation. EdgeGardMAX is a state-of-the-art window spacer using an advanced design to stop heat flow and reduce condensation to improve energy efficiency and help extend the life of the glass unit.

**Argon and Krypton gas-filled spacers** - Argon gas, used between panes, is often an option offered by top window manufacturers. It enhances thermal performance without getting in the way of the view. Krypton is another invisible gas that offers higher levels of thermal protection.

**U-Factor** - U-factor is a measure of heat lost and indicates how well a window, skylight or patio door can withstand heat transfer. The lower the u-factor value, the higher the insulating performance of a building element. U-factors on windows generally range from 0.25 to 1.25.

**Solar Heat Gain Coefficient (SHGC)** - SHGC measures the amount of solar radiation transmitted through a window, expressed as a number between 0 and 1. The lower the SHGC, the less solar heat the window transmits.



For more information including technical specifications and reviews, visit

**MILGARD.COM**

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ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency. Milgard Windows is proud to be an ENERGY STAR® partner, with all Aluminum Series products ENERGY STAR® qualified for all U.S. zones. Milgard Aluminum Series windows and doors meet criteria for structural integrity and reliable performance established by the American Architectural Manufacturers Association (AAMA). Consult your Milgard representative for specific test information.

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