



THERMALLY IMPROVED ALUMINUM

A250

THERMALLY IMPROVED WINDOWS & PATIO DOORS



CONTEMPORARY STYLE WITH TIMELESS BEAUTY

STRONG AND DURABLE

Valley Isle
WINDOWS & DOORS
Mau'i's Finest View
808-796-5984 



Contemporary style. Strong and beautiful.

Milgard Thermally Improved Aluminum windows and patio doors beautifully accentuate the clean, thin lines of contemporary design, combined with strength and durability that lasts.

For years, architects and builders have specified aluminum windows and patio doors when projects called for combinations with large glazing areas to accentuate maximum views.

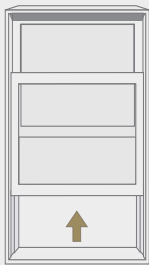
It's tough to beat Milgard Thermally Improved Aluminum windows and patio doors for their narrow sightlines, design flexibility and lasting value.

THERMALLY IMPROVED ALUMINUM | A250 OFFERS:

- Clean lines and narrow frames for a contemporary look
- Includes a polyurethane channel to reduce thermal transfer and improve energy efficiency
- High quality components that start with the rollers and go all the way to the frame itself
- SunCoat® Low-e glass is standard for energy efficiency and helps protect against fabric fading
- Replacement and new construction options
- The Milgard Lifetime Limited Warranty

Define Your Home with Windows

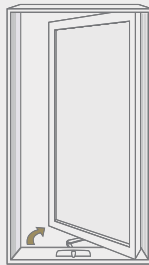
Milgard Thermally Improved Aluminum windows can be combined to build just about any configuration you can dream up. The narrow sightlines coupled with its inherent strength inspire design freedom and the Milgard commitment to quality provides peace of mind you can count on.



Single Hung

HARDWARE

Spring Action Lock



Casement

HARDWARE

Push Out Operator



Awning

HARDWARE

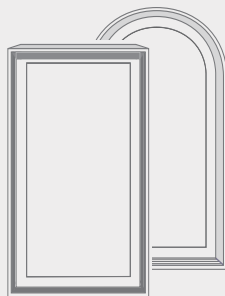
Push Out Operator



Horizontal Slider

HARDWARE

Spring Action Lock



Picture and Radius

HARDWARE

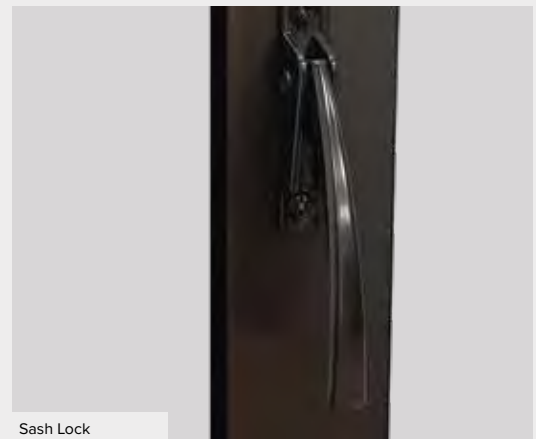
Non-operable



Spring Action Lock



Push Out Operator



Sash Lock

Make it Your Own

Grids

Express your creativity and dramatically increase your home's curb appeal with our grid options. Select grid choices placed inside our insulated glass units for easiest window cleaning.



FLAT GRID

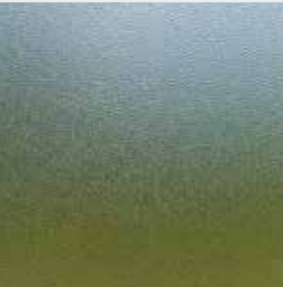


SCULPTURED GRID

Decorative Glass

For rooms such as the bathroom, we offer obscure glass for privacy or decorative flair. We also have tinted glass for additional shading from direct sunlight.

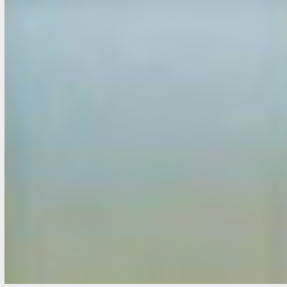
VISIT MILGARD.COM/GLASS TO SEE FULL COLLECTION OF OPTIONS



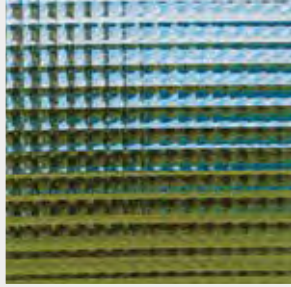
P516



RAIN

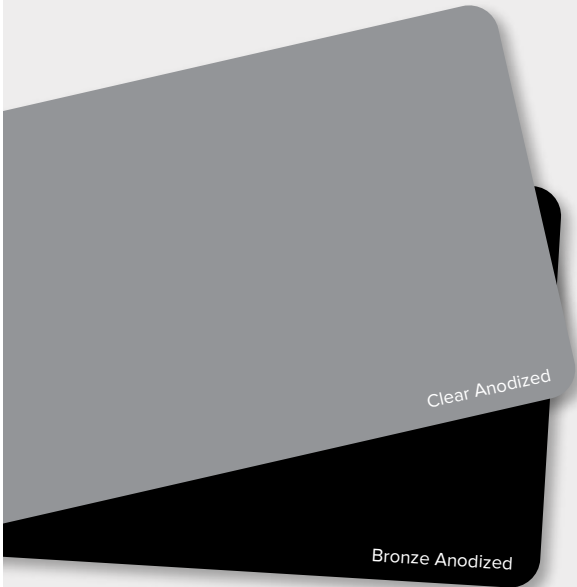


MATELUX



CROSS REED

Timeless Finish Options



Thermally
Improved
Aluminum
Finishes

Colors shown are approximate due to printing limitations. Anodized coatings and painted finishes help to prevent against rusting, pitting and corroding.

Thermally Improved Aluminum | A250 Patio Doors

Aluminum patio doors offer clean, narrow sightlines along with strength and durability. They can be configured into large combinations to maximize views. Milgard Thermally Improved Aluminum doors help reduce the flow of heat and improve insulating ability.



Features

- Narrow sightlines to highlight expansive views
- Sealed, mechanically-joined corners that stay square and true over time
- Superior energy performance with SunCoat® Low-e glass coatings and EdgeGardMAX™ spacers
- The Milgard Lifetime Limited Warranty for peace of mind

Sliding Doors

- Available in 2, 3, and 4 panel configurations

THERMALLY IMPROVED ALUMINUM SIZES

2-Panel: Min 5'0" w x 6'8" h Max 8'0" w x 6'10" h

3-Panel: Min 9'0" w x 6'8" h Max 12'0" w x 6'10" h

4-Panel: Min 10'0" w x 6'8" h Max 16'0" w x 6'10" h

Sliding Door Hardware

- Available with or without keyed option
- D handle available in Black only (shown below).

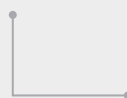


INTERIOR SLIDING DOOR HANDLE
BLACK ONLY



EXTERIOR SLIDING DOOR HANDLE
BLACK ONLY

Hardware Finishes



Black

Sizes can vary by location. Your Milgard Certified Dealer can provide more detail on sizes available in your area.



Why Milgard Windows & Doors

Quality

Milgard offers award-winning windows and patio doors built for long-lasting comfort. For over 50 years, industry experts have consistently recognized Milgard as a trusted brand. Milgard products have been ranked among the Best of Houzz Design five years in a row.

Experience

Since 1962, Milgard has designed and assembled superior custom-made windows and patio doors for replacement, remodeling and new construction. Milgard is known for their industry-leading designs, using patented technologies, that help make your home more comfortable.

Service

We have always taken great pride in our ability to provide exemplary customer service. We believe that being close to our customers allows us to provide a better service experience. You'll find Milgard factory trained technicians near you in the Western U.S. and Canada.

Warranty

We have a dedication to quality and build our windows and patio doors to last. With Thermally Improved Aluminum Series, you're covered for as long as you own your home with our Lifetime Limited Warranty. See complete details at [MILGARD.COM/WARRANTY](https://www.milgard.com/warranty)

SunCoat® and EdgeGardMAX™ are trademarks of Milgard Manufacturing, LLC

Milgard Thermally Improved Aluminum 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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ENERGY EFFICIENT

WINDOWS AND PATIO DOORS



HIGH PERFORMING ENERGY OPTIONS
FOR A COMFORTABLE HOME

Energy Efficiency

Tested and Built for Your Climate

At Milgard, we help homeowners like you make an impact on their energy consumption by offering energy efficient windows and patio doors designed for your homes comfort. Our thermally improved windows and doors include a polyurethane channel to reduce thermal transfer and improve energy efficiency.

We make it easy to meet local energy codes and green building efficiency standards with a selection of energy packages you can tailor to your specific climate. We conduct thermal simulations to improve energy performance and we adhere to ENERGY STAR® v6 requirements that meet or exceed U-Factor and Solar Heat Gain Coefficient (SHGC) criteria in the areas we serve.



**THERMALLY IMPROVED ALUMINUM FEATURES A
POLYURETHANE CHANNEL TO REDUCE THERMAL TRANSFER AND
IMPROVE ENERGY EFFICIENCY.**



Your energy efficient windows could include one or more of the following features based on your climate.

- SunCoat® or SunCoatMAX®
- EdgeGardMAX™ Spacer
- Foam Spacer
- Argon
- 4th Surface Low-e

The Components



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.

HIGH PERFORMANCE GLASS – Milgard’s SunCoat® & SunCoatMAX® Low-E

SunCoat® Low-E is a transparent, low-emissivity coating applied to one side of the glass in our dual-pane windows. This microscopically thin coating filters the sun's energy in the summer and reduces heat loss in the winter, making even energy bills look better. Low-E has been a product usually recommended for cold climates. Now with our introduction of SunCoat Low-E glass, you can use this product everywhere, from the heat of Southern Nevada desert to the cold of Chicago and Alaska winters.

You can get even greater thermal performance with the addition of argon gas to our standard, dual-pane, SunCoat Low-E insulating glass. In fact, our vinyl and fiberglass insulated windows have even been recognized by ENERGY STAR® for their exceptional energy-saving qualities in your home.

The Benefits of Milgard SunCoat Low-E Glass Are Clear

- Comes standard on all Milgard windows and doors
- Reduces heat and cooling loads
- Reduces harmful UV rays that fade carpet and furniture up to 86%
- Provides all around comfort, all year long

SunCoatMAX is also a low-emissivity coating but it has three spectrally selective layers to filter out UV while providing a lower solar heat gain and allowing 66% visible light transmittance. What is more, SunCoatMAX provides the ultimate in fading protection. It blocks 95% of the sun's damaging ultraviolet rays - a leading cause of fading - so your furniture, carpets, curtains and wall coverings stay beautiful for years.

	Solar Heat Gain Coefficient	Ultra Violet Light Transmittance	Winter Heat Loss (U-Factor)
Clear single-pane glass	0.86	71%	1.04
Clear double-pane glass	0.76	56%	0.48
Milgard SunCoat® Low-E Glass	0.37 - 0.41*	14 - 16%*	0.30
Milgard SunCoatMAX® Low-E Glass	0.27	5%	0.29
	----- Ultra Violet Light Transmittance -----		

Note: All values calculated using Window 5.2 and represent center of glass properties. (For more information on the window program, see <http://windows.lbl.gov/software/default.htm>.) All glass is 3mm thick, and ½" gap width. This is for comparable purposes only, your values may differ.

* Contact your nearest [Milgard location](#) to receive the specific value.

Glass and Glazing

TINTED GLASS

Tinted glass is manufactured by the same float glass process, but with an additional additive to give a tint its unique coloration.

Benefits of Tinted Glass:

- Reduces visibility to an interior, adding privacy.
- Absorbs heat to reduce solar heat gain.
- Reduces ultraviolet light damage to interior furnishings.
- Can be tempered.

NOTE: The addition of after-market applied tints or films to Milgard windows and patio doors may cause seal failure or glass breakage, and will void the Milgard Full Lifetime Guarantee.

There are various tints available through Milgard to achieve the energy performance or architectural style that is desired. These tints include Solar Bronze, Solar Gray, Graylite, Solex, Evergreen and Azurlite. Please check with your Milgard Representative on availability of these and other tinted products.

REFLECTIVE GLASS

The reflective coating is applied just like Low-E, either sprayed (pyrolytic process) or applied using the vacuum deposition sputtering process, depending on suppliers.

Benefits of Reflective Glass:

- Reflects light and heat with a metal oxide coating giving a mirror effect.
- Minimizes solar heat gain and ultraviolet light damage to interior furnishings.
- Adds daytime privacy.
- Can be tempered.

There are various reflective glass types available through Milgard to achieve the energy performance or architectural style that is desired. These include Solar Cool Bronze and Solar Cool Gray. Please check with your Milgard Representative on availability of these and other reflective products.

NOTE: Heat absorbing and heat reflective glass can only be used on the exterior lite of a glazing unit, to avoid a build-up of heat inside the airspace, which will cause thermal stress cracks or seal failure.

NOTE: Reflective-type glass works with the play of light. Example: During daylight hours you can't see inside a building with reflective glass, (only your reflection). At night, the opposite effect occurs. You can see in, but the people inside cannot see out. If you specify this type of glazing in a residential application, suggest that a spotlight be placed outside of the window. It will give the same effect as daylight.

LAMINATED GLASS

Laminated glass is produced by permanently bonding two pieces of glass together with a tough plastic interlayer (polyvinyl butyral) under heat and pressure. Once bonded together, the sandwich behaves as a single piece. The interlayer is invisible when viewed through the glass and with glass on either side, the finished lite is indistinguishable from plain glass when installed.

Glass and Glazing

Most often, laminated glass is produced from annealed glass, but tempered glass can be used when special performance needs are present. The benefit of laminated glass – if it is broken, glass fragments adhere to the plastic interlayer rather than falling free and potentially causing injury. Laminated annealed glass can be cut or drilled.

Laminated glass is required in sloped glazing applications (such as skylights), that exceed any of the following conditions:

- The area of each pane (single glass) or unit (insulating glass) exceeds 16 square feet.
- The highest point of the glass is greater than 12 feet above any walking surface or other accessible area.
- The nominal thickness of each pane exceeds 3/16”.

Noise Reduction Benefits:

Laminated glass is highly effective in reducing noise, thus reducing Sound Transmission Ratings. The damping characteristics of the plastic interlayer combines with the attenuating characteristics of the air space of the insulated glass (IG) unit to maximize sound reduction.

Example: Two lites of 1/4” laminated glass in an IG unit with a 1/2” air space provides an STC rating of 42. This compares with two pieces of plain 1/4” glass in an IG unit with a 1/2” air space, where the STC rating would be 35.

Laminated glass eliminates 99.9% of ultraviolet rays, making it highly effective in protecting furnishings, displays, merchandise, etc.

Standard laminated glass is 7/32” with a .030 (approx. 1/32”) polyvinyl butyral interlayer.

OBSCURE GLASS

To add privacy where window coverings are impractical or undesirable, we recommend obscure glass. Our obscure glass can be tempered for safety and is available in numerous styles, some of which are shown below.



Benefits of Obscure Glass:

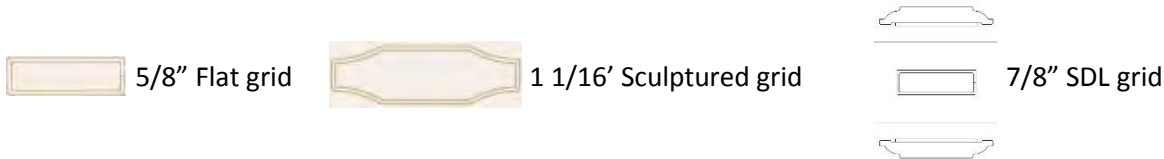
- Adds privacy where window coverings are impractical or undesirable (bathrooms, door sidelites).
- Various colors and texture patterns provide a translucent, semi-opaque effect for unique visual design applications.
- Can be tempered.

Please check with your Milgard Representative on availability of these and other obscure glass products.

Glass and Glazing

GRIDS (DIVIDERS, GBG, MUNTINS, ETC.)

With the right choices in grids, you can really make your windows and doors stand out. Grids are available in all of our window and door product lines. Milgard’s Montecito® and Tuscany® product lines offer a choice of either flat, sculptured or simulated divided lite (SDL) grid options. The Style Line™ product line offers flat grids as an option.



Multiple grid configurations allow nearly endless options to customize your home design. By simply altering the grid design, you can dramatically impact the home’s curb appeal. Below are just a few of the many possible grid configurations.



Please check with your Milgard Representative on availability of these and other grid patterns.

BASIC GLASS DEFINITIONS

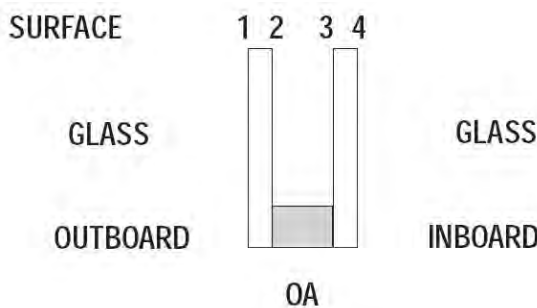
Lite: Single piece of glass

SS: Single strength glass, 3/32” thickness

DS: Double strength glass, 1/8” thickness

IG Unit: Two or more pieces of glass separated by a hermetically (air-tight) sealed airspace, forming a construction that reduces heat transfer for improved thermal performance.

O.A.: The thickness, overall, of an insulated unit of glass, including both pieces of glass and the spacer bar.



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