Architectural Manual

Thermally Improved

Aluminum Series
Windows & Patio Doors

Milgard
Clearly the best.
Instructions on how to use this manual:

This document has been designed for easy navigation and to quickly click to the section you need. Here’s some important tips on using this document:

- Any item print in red, will click through to the corresponding item.

- Click to any item in the Table of Contents on page 3. Click on the Milgard logo at the top of any page to return to the Table of Contents - FULL MANUAL ONLY.

- From each section’s Quick Links page, click to any Drawing listed.

- From any Drawing page, click the “Go Back to Quick Links” box on the bottom right of the page to return to the list of drawings.

- Click on the links on the bottom of the page to go to Revit, SketchUp . PDF and .DWG files. Please note that you must have internet access for these links and you will be re-directed to the Milgard site.

- This document can also be navigated from Adobe Acrobat Bookmarks.

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:

Thermally Improved Aluminum Architectural Library
About Thermally Improved Aluminum Series

Milgard Thermally Improved Aluminum windows consist of extruded aluminum, where a “channel” is cut through the aluminum and polyurethane is poured into this channel to separate the interior from exterior extrusion. This process is done to reduce thermal transfer and improve energy efficiency.

Features and benefits of Thermally Improved Aluminum Windows:

• Sealed, mechanically-joined corners stay square and true over years of use, helping to keep homes dry.

• Clean, narrow sight lines for contemporary designs and maximum view area.

• Milgard SunCoat® Low-E glass for excellent energy savings and protection against fabric fading.

• Industry-leading Full Lifetime Warranty.

• Anodized coating helps to prevent against rusting, pitting and corroding.

Energy Packages

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

Milgard also offers high energy performance options for the ultimate in energy efficiency. Energy efficient windows could include one or more of the following features based on your climate.

• SunCoat® or SunCoatMAX®

• EdgeGardMAX®

• Argon

For more details on Milgard Energy Efficient packages, visit www.milgard.com/learn/energy-efficiency/energy-efficient-components

To check the energy performance of all Milgard windows and doors, use our Energy Calculator at:

milgard.com/energy-calculator

Test Standards

Contact your Milgard Representative for specific test data.

CAUTION: The use of petroleum based fuels or solvents as release agents in stucco wall installations or glass cleaning will chemically attack materials used in seals and other components, and voids the Milgard Full Lifetime Warranty. The use of wax-based release agents is recommended.

Expanding foam for insulation purposes should not be used. Non-expanding foam or loose packed batt insulation is recommended.

Not all locations manufacture or sell Thermal Break aluminum. Check with your Milgard Dealer.
Thermally Improved Aluminum Options

Hardware

- Casement and Awning Handle
- Spring action lock for Single Hung and Horizontal Slider
- Sliding Door Handle - interior
- Sliding Door Handle - exterior

Colors

- Clear Anodized
- Bronze Anodized

Grids

- 5/8" Flat Grid
- 1-1/16" Sculpted
Full Lifetime Warranty

At Milgard, we build our windows and doors to last. With the dedication to quality that we put into building the best windows in the business, it wouldn’t make sense to back them with anything but the best warranty in the business. That’s why we back every properly installed window and door for as long as the homeowner owns their home—including parts and labor. It’s why you can be sure you won’t find any windows better than Milgard.

For complete warranty details, visit milgard.com.

Why Milgard?

Milgard is one of the largest and most trusted names in windows and doors. For the last 50 years, we’ve demonstrated our commitment to innovation, quality and service.

While our coverage is extensive, our service is local. Milgard has multiple locations throughout the Western U.S. and Western Canada. Our belief is that by being close to our customers, we can provide them better service. This means faster lead and delivery time, as well as faster response to any warranty situations. We’re there for you long after the job has been completed. Milgard also has a comprehensive network of qualified dealers and offers some of the best training in the industry.

Awards give you added assurances and Milgard has been named “Best Quality in the Nation” eight times and the nation’s “Most Used Vinyl Window” four times by Builder magazine. Both Professional Remodeler and Professional Builder magazines have named us “Most Preferred Vinyl Window” three times.
Horizontal Sliding Windows

Please also see:

TI Aluminum Options
Full Lifetime Warranty

Overview

The 1120 Series is designed as an inside slider (the sliding panel or “vent” slides inside the stationary panel). For the vent to open completely, there must be at least an equal size adjacent stationary panel. Horizontal Sliders can be used alone or combined with picture, gable or radius windows for vent below and vent above options.

Components

FRAME

Frame components are made from 6063-T5 aluminum alloy with a structural wall thickness of .060”, and non-structural wall thickness of .050”. The 1120 Series utilizes a thermal break for added insulation value. The poured in polyurethane insulator is approximately 1/4” wide at the most narrow point and is used in all frame members. The frame is available in clear and bronze anodized finishes with a standard .4” mil coating thickness.

The 1120 Series is designed for clean lines and high visual appeal with maximum glass exposure. Wide screw spacing on the mechanically joined corners ensure a rigid connection with a consistent dimension. Corners are sealed for added protection from the weather. The standard frame is 2-5/8” in width.

NAIL-ON FIN

An integral nailing fin extends 1” around the perimeter of the standard frame and is used to attach the window into the rough opening. The fin is scored for complete removal for retrofit/wood stop installations. The fin is setback 1-5/16” from the exterior edge of the frame.

WEEP SYSTEM

Split sill construction and baffled, hidden weep holes drain water from the track. The unique sill design greatly reduces the occurrence of “blow back”, or water seeping to the inside caused by a combination of wind and rain.

GLAZING MATERIAL

AAMA approved glazing tape adheres glass to the fixed and vent frame and seals and cushions the glass. Rigid vinyl setting blocks are used to support the unit above the sill, preventing glass slippage and glass-to-metal contact. Extruded vinyl glazing (snap-in) bead is applied around the exterior edge. The vent panel utilizes a “Ushaped” vinyl channel designed to seal the unit and cushion the glass from the frame.

GLASS

Glass options are available in 1” overall insulating units in clear, tinted, reflective, obscure, Low-E, and safety glass. Other specialty glass is available upon request.
VENT PANEL
The vent is engineered for the thickness and weight of insulating glass. It’s roller assembly rides on a monorail track for easy operation and durability. This raised track in the frame sill helps keep the vent operation free from interference by foreign particles that may collect in the sill.

WEATHERSTRIPPING
Silicone treated, water repellent polypropylene fin seal weather-stripping provides a durable, weather tight seal. This weather-stripping is installed in an integral, continuous keyway around the entire perimeter of the vent panel.

ROLLER ASSEMBLY
Self-lubricating, wear resistant, dual nylon rollers provide flexible, freewheeling, smooth and silent operation. Rollers are engineered for reduction of friction and elimination of torque on the vent frame. Prevention of metal-to-metal contact eliminates unsightly wear marks on the monorail track. Roller housings without rollers are installed in the vent top to serve as guides.

LOCKING ASSEMBLY
An automatic, spring-loaded, positive lock is located on the vent lock stile and secures to the vertical meeting rail. The aluminum handle is adjustable to any desired height. When the window is fully closed it will lock automatically.

SCREEN
Screen frames are aluminum, finished with three coats of color matched baked polyester for long term durability. Tension springs are integrated in the screen frame for a secure fit and easy installation from inside or outside. The screen material is an attractive, low maintenance black fiberglass mesh.

Options
Available options include:

GRIDS
Available in 5/8” standard or 1-1/16” sculptured aluminum pro-files sealed between panes.

SPACER
Spacer available in a standard clear finish or optional bronze or champagne finish in the airspace of the insulating glass units. PGG Intercept™ warm-edge steel spacer available in certain regions. Contact your Milgard Representative for spacers used in your area.

TEST STANDARDS
Contact your Milgard Representative for specific test data.

CAUTION: The use of petroleum based fuels or solvents as release agents in stucco wall installations or glass cleaning will chemically attack materials used in seals and other components, and voids the Milgard Full Lifetime Warranty. The use of wax based release agents is recommended. Expanding foam for insulation purposes should not be used. Non-expanding foam or loose packed batt insulation is recommended.
Horizontal Sliding Windows

Configurations

Minimum/Maximum Sizes

HALF VENT
- Min 2\degree 1\degree
- Max 6\degree 6\degree

DOUBLE VENT
- Min 4\degree 1\degree
- Max 10\degree 6\degree

HALF VENT (BELOW/ABOVE)
- Min 2\degree 2\degree
- Max 6\degree 7\degree

DOUBLE VENT (BELOW/ABOVE)
- Min 4\degree 2\degree
- Max 8\degree 7\degree

Available Frame Styles

- 1-3/8\” Setback
- No Fin (Block Frame)

NOTE: For engineering approval contact your Milgard representative for any configuration over 40 square feet. Each Milgard Manufacturing plant reserves the right to alter or change sizes and configurations according to location capabilities. Ask your Milgard rep about specialty applications. Windows over 40 square feet shipped open for field glazing. Varies by location.

Not all frame styles available at all Milgard locations. Contact your Milgard Representative for more information.
Drawings - Quick Links

**Horizontal Sliding Window**

11—1-1/16" Nailfin Setback
12—1-3/8" Nailfin Setback
13—Block Frame
14—1-1/16" Nailfin Setback - Half Vent Above
15—1-1/16" Nailfin Setback - Half Vent Below
16—1-3/8" Nailfin Setback - Half Vent Below
17—1-1/16" Nailfin Setback - Double Vent
18—1" Nailfin Setback - Half Vent Picture Window
19—Z-bar
20—Sloped Sill - Half Vent Above

Revit, SketchUp, .PDF and .DWG files can be accessed at [milgard.com/professionals](http://milgard.com/professionals) or clicking here: [Thermally Improved Aluminum Architectural Library](http://milgard.com/professionals)
Thermally Improved Aluminum

Horizontal Sliding Window

1-3/8” Nailfin Setback

---

<table>
<thead>
<tr>
<th>CAD File Scale</th>
<th>View</th>
<th>File Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTS</td>
<td>Horizontal &amp; Vertical</td>
<td>Aluminum_TIE_1120_HV_1.375in</td>
<td>Inch</td>
</tr>
</tbody>
</table>

More Technical Documents can be found at milgard.com/professionals
Due to continual research and development, details may be changed at any time. ©2013 Milgard Mfg.

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:
Thermally Improved Aluminum Architectural Library

© Milgard Manufacturing, Inc.
Thermally Improved Aluminum

Horizontal Sliding Window

Block Frame

<table>
<thead>
<tr>
<th>CAD File Scale</th>
<th>View</th>
<th>File Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTS</td>
<td>Horizontal &amp; Vertical</td>
<td>Aluminum_TIE_1120_HV_Block</td>
<td>Inch</td>
</tr>
</tbody>
</table>

More Technical Documents can be found at milgard.com/professionals

Due to continual research and development, details may be changed at any time. ©2013 Milgard Mfg.

HORIZONTAL SLIDER

SERIES 1120

HEAD & SILL

JAMBS

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:

Thermally Improved Aluminum Architectural Library

© Milgard Manufacturing, Inc.
Thermally Improved Aluminum

Horizontal Sliding Window

1-3/8” Nailfin Setback - Half Vent Above

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:
Thermally Improved Aluminum Architectural Library
Thermally Improved Aluminum

Horizontal Sliding Window

1-3/8” Nailfin Setback - Half Vent Below

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:
Thermally Improved Aluminum Architectural Library

© Milgard Manufacturing, Inc.
Thermally Improved Aluminum

Horizontal Sliding Window

1-5/16" Nailfin Setback - Double Vent

More Technical Documents can be found at milgard.com/professionals

Due to continual research and development, details may be changed at any time. ©2013 Milgard Mfg.

HEAD & SILL

JAMBS

Revit, SketchUp, .PDF and .DWG files can be accessed at milgard.com/professionals or clicking here:

Thermally Improved Aluminum Architectural Library