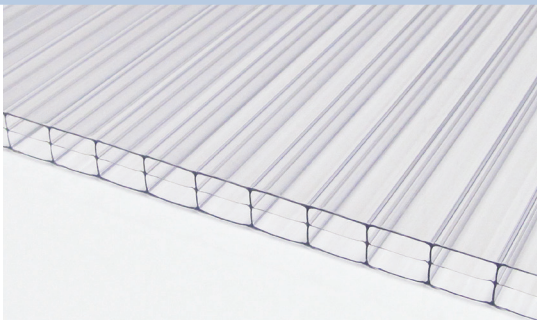
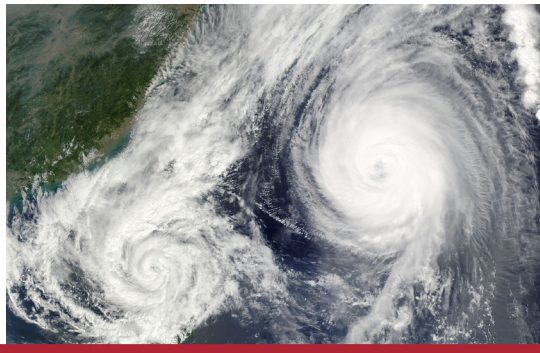
Hurricane Storm Panel

Technical & Install Guide





Focused on the Customer Experience

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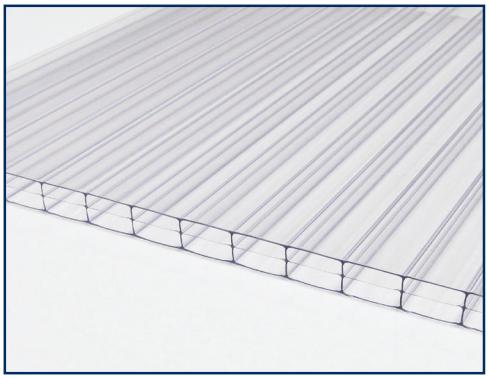
About AmeriLux International

AmeriLux is a value-adding distributor of multiwall and corrugated polycarbonate sheets, PVC liner panels, HDPE panels, acrylic sheet, and many other plastic sheet products. Our products are used in a variety of glazing, cladding, and daylighting applications in the industrial, agricultural, horticultural, residential, and architectural markets.

Headquartered in De Pere, Wisconsin, AmeriLux sources and distributes materials from and to companies around the world. It is by building and maintain strategic, win-win partnerships with vendors, customers, and employees that AmeriLux is able to profitably – and sustainably – grow its business.

Hurricane Storm Panel

Lightweight yet extremely durable, clear polycarbonate storm panels allow ample daylight to pass through while effectively protecting windows and doors from hurricane damage. These transparent hurricane shutters have been rigorously tested by independent third parties to be used in extreme wind conditions.



Tests included an impact test which involved shooting a wooden 2x4 at a 16mm 3-wall polycarbonate panel and a cycle test to determine if the multiwall polycarbonate panel could withstand rapid pressure changes. The Hurrigal storm panel has been certified by a third-party quality insurance entity and when installed properly meets high velocity hurricane zone (HVHZ) applications.

Key Product Features:

- Transparent: Lets daylight in while providing hurricane window protection.
- Strong & Durable: High impact-resistant multiwall polycarbonate.
- Hardware Included: Provides quick and easy anchoring of storm panels.
- Easy-To-Install: Simply attach panel shutters w/basic woodworking tools.
- Removable & Reusable: Easily remove and store after the storm season.
- Tested & Certified: Meets Florida HVHZ applications FBC # 28824.1, NAMI certified.

Before you Start

Read all instructions before installing hurricane storm panels.

- Maximum panel size is 48″ x 96″.
- Panel must be attached on all four sides in accordance with these instructions.
- Panels must overlap opening a minimum of 3″ on all four sides.
- Minimum installed separation between glass and 16mm 3-Wall Hurrigal panels is 2.75″.
- Do not leave exposed longer than a hurricane event.

AmeriLux does not guarantee suitability for any particular application or installation. It is the sole responsibility of the customer or purchaser to determine suitability and compliance with "all applicable" codes and regulations. Failure to use specified hardware for installation is done at the risk of the consumer and may result in non-compliance with certain building codes and regulations. AmeriLux recommends using only specified hardware for installation.

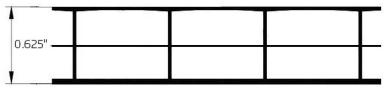
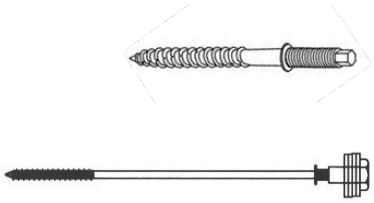
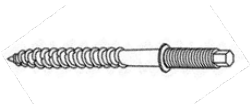
Safety Tips

For safe installation of panels, use ladders, protective goggles, gloves, and other necessary safety equipment. Make sure to read all install instructions before starting.

Install Tools

Lightweight and easy to handle, hurricane storm panels can be fabricated on site and require no special tools to install. Common tools needed include: drill, 3/16" or 7/32" masonry bit and 3/8" standard drill bit, circular saw and sandpaper (if panels need to be cut), level, sharpie, and mounting hardware.

Mounting Hardware

Part	Description	Substrate	Edge Distance	Depth of Embedment
	16mm 3-Wall Hurrigal Sheet			
	1/4" Panelmate Pro 1/4" Panelmate Plus 1/4" Panelmate Pro TVAS	Concrete: 2,500 PSI	2.50"	1.75"
			1.0"	2.0"
			2.50"	2.0"
		CMU: 2,000 PSI	2.0"	1.25"
			3.0"	1.25"
		Wood: SG 0.42 (non-HVHZ) & 0.55 (HVHZ)	0.75"	1.875"
			2.0"	1.50"
	1/4" Tapcon SG	Concrete: 2,500 PSI	1-1/4"	1"
			2-1/2"	1"
			1-1/4"	1-3/4"
			2-1/2"	1-3/4"
			1-1/4"	1-1/4"
			2-1/2"	1-1/4"
	1/4-20 wing nut, material shall be compatible with anchor			
	1/4" flat washer, 1-14" O.D, material shall be compatible with anchor			

Hurricane Storm Panel Installation

For safe installation of panels, use ladders, protective goggles, and other necessary safety equipment.

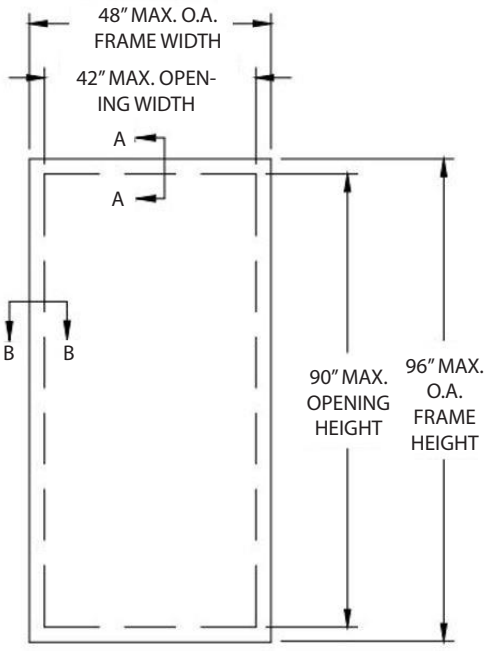
Cutting

Cut panel width and length to overlap opening on all sides 3". The panel length is the direction of the flutes. Exterior UV treated surface has printed masking. Mark the exterior surface with a marker pen before removing the masking. Install panels so that the exterior UV treated surface is exposed to the sun.

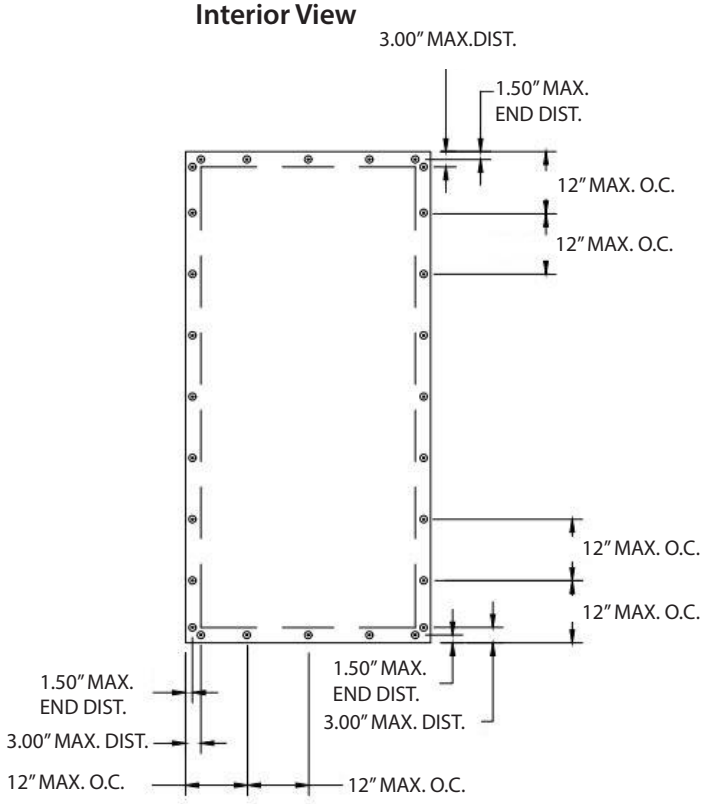
Marking Holes for Predrilling

- Starting at the upper left hand corner, measure down from the top edge 1½" and from the left edge measure to the right 3"- mark the point. Repeat to the right from the left edge at 12", 24", 36", and 45" (five fasteners across the top).
- Starting at the upper left hand corner, measure toward the right from left edge 1 ½" and measure down from the top edge 3" - mark the point. Repeat toward the bottom of the panel at 12", 24", 36", 48", 60", 72", 84", 93" (nine fastener down the left edge).
- Starting at the lower left hand corner, measure up from the bottom edge 1 ½" and from the left edge measure right 3"-mark the point. Repeat to the right from the left edge at 12", 24", 36", 45" (five fasteners across the bottom).
- Starting at the upper right hand corner, measure toward the left from the right edge 1 ½" and measure down from the top edge 3"- mark the point. Repeat towards the bottom of the panel at 12", 24", 36", 48", 60", 72", 84", 93" (nine fasteners down the right edge).

Exterior View



Anchor Layout
Interior View



Predrilling Fastening Holes

Temperature change causes panels to expand and contract. Always pre-drill holes to allow for thermal movement, providing enough space for temperature fluctuation.

- Use only new or sharply ground steel or carbide tipped drill bits
- Drill at a low speed. Support panel underneath to avoid vibration.
- Drill with a 3/8" drill bit through all marked points on hurricane panel.

Mark Wall Fastening Points

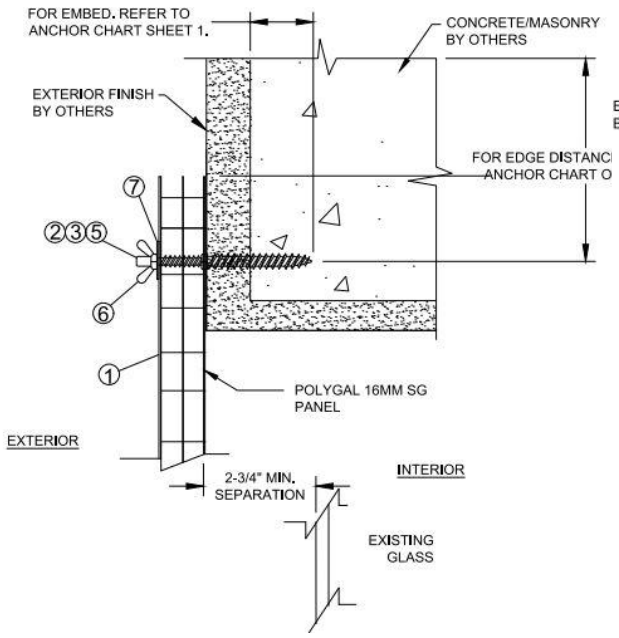
- With the help of another person use the predrilled panel as a template.
- Position the predrilled panel against the wall of the building making sure that it is square and level and that all sides overlap the opening 3".
- Using a marking pen, mark each predrilled hole position on the concrete/wood wall.

Install Methods

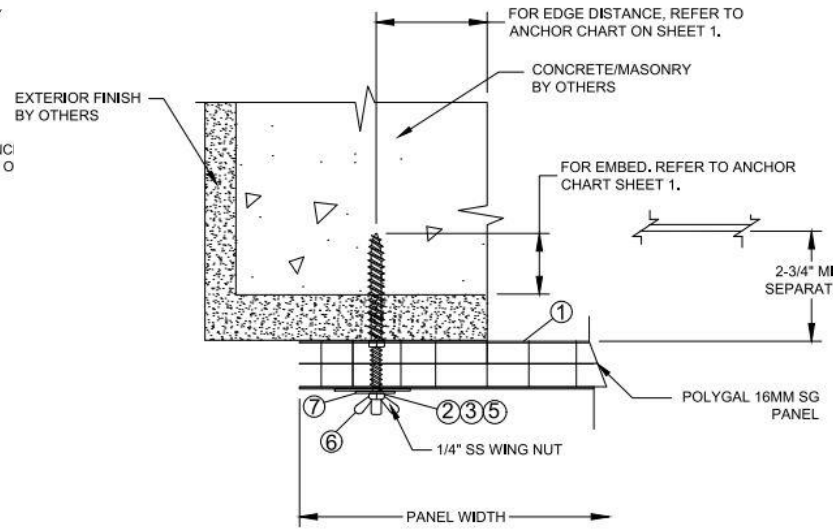
Concrete Wall Mount Installation

- Using the "PanelMate" manufacturers' installation instructions, predrill concrete/block wall where fastening points are marked.
- Install one "PanelMate" anchor for each predrilled hole.

Vertical Section



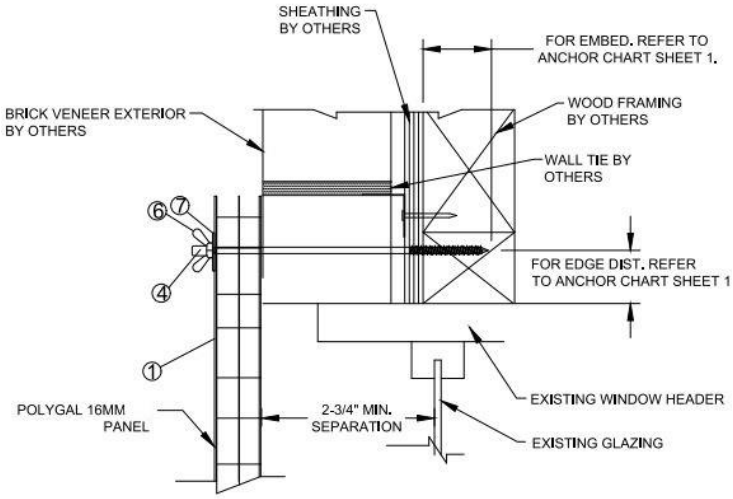
Horizontal Selection



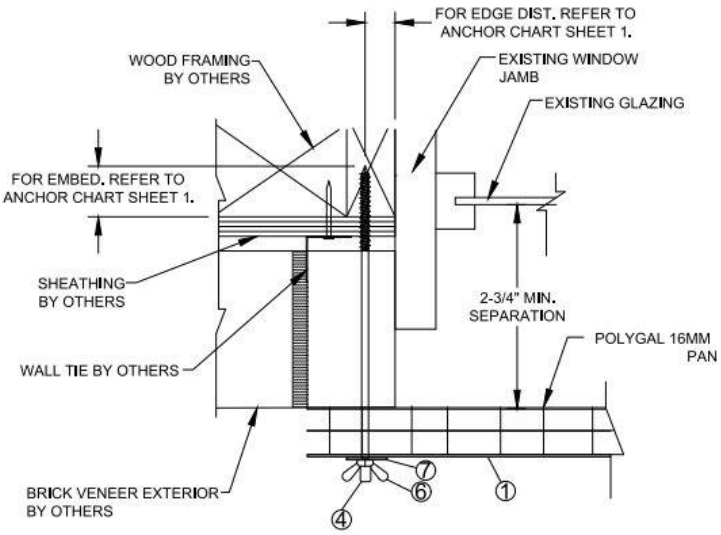
Solid Brick Veneer Wall Mount Installation

- Using the "PanelMate" manufacturers' installation instructions, predrill solid brick veneer wall where fastening points are marked.
- Install one "PanelMate" anchor for each predrilled hole.

Vertical Section



Horizontal Selection

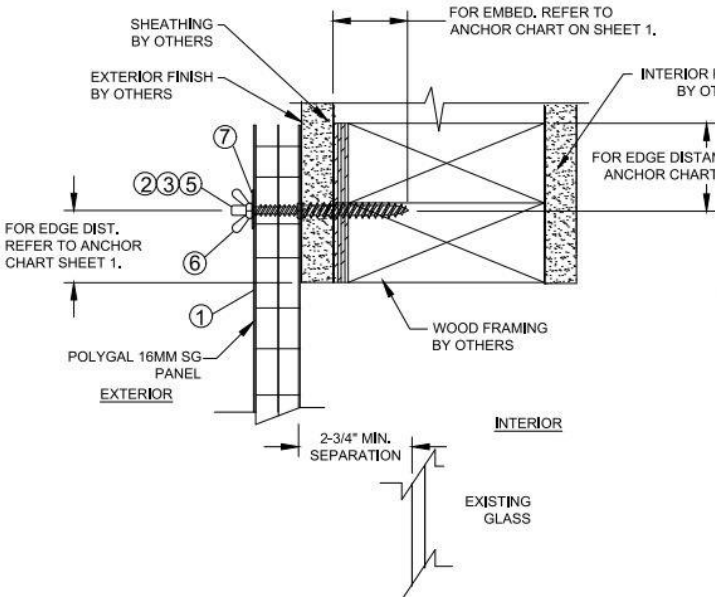


Wood Frame Wall Mount Installation

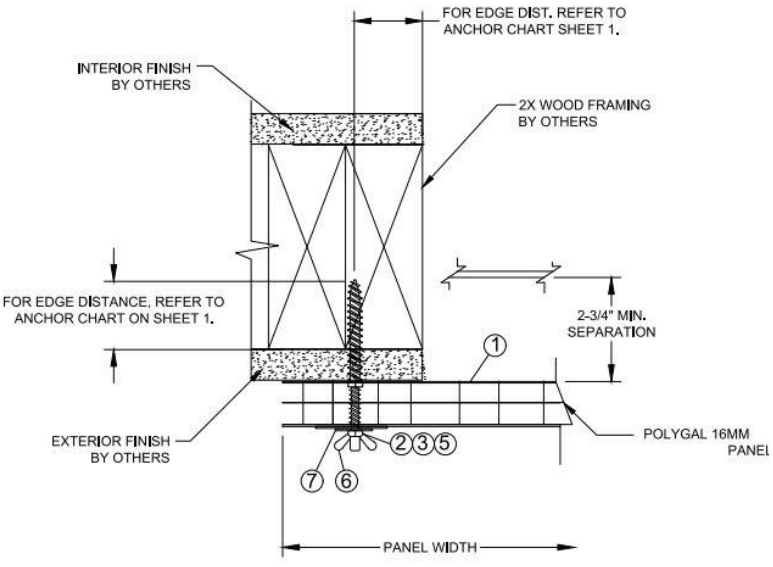
- Using the "PanelMate" manufacturers' installation instructions, install one "PanelMate" anchor for each fastening mark made upon the wall.

Note: Wood walls do not have to be predrilled.

Vertical Section



Horizontal Selection



Fixing Posts

- Install the predrilled Hurricane Storm Panel on the "PanelMate" posts that have been installed in the wall.
- Place one 1 ¼" washer on each fixing post after the panel is in place, followed with one wing nut and tighten the wing nut to hold the panel in place.

Uninstall Hurricane Panel

To uninstall, remove the wing nuts and washers. Remove the panel and store in a protected space Replace all washers and wing nuts for future reinstallation.

Storage

- Store panels on a flat, raised surface preferably in a cool, dry place indoors.
- Lay panels flat and straight, stack shorter panels on top of longer panels.
- If kept outdoors, store panels in a cool and dry place out of direct sunlight.
- Cover panels with an opaque material that does not absorb or conduct heat.
- Allow for good ventilation to minimize heat and condensation buildup.

Cleaning

Periodically cleaning in accordance with guidelines can help prolong the life of the panel. Use of incompatible cleaning products can cause structural and/or surface damage.

- Gently wash panel with mild household detergent, lukewarm water, and a soft cloth or sponge.
- Thoroughly rinse panel with clean water and dry with a soft cloth to prevent water spotting.
- Never use abrasive cleaner, corrosive chemicals, or gasoline
- Never scrub with brushes, steel wool, or other abrasive materials
- Don't use squeegees, razor blades, or other sharp instruments to remove deposits or spots
- Don't clean hurricane panel in direct sunlight or at high temperatures

Additional Information

If additional technical, loading, or system information is needed, please contact AmeriLux if you have a specific question about requirements in your region, contact your local code office or building inspector. Drawings and technical reports are provided for reference only. Drawings are not project-specific and are for product representation only. Actual products may vary. These drawings are the property of AmeriLux and are to be used solely as a representation of AmeriLux products. These designs may not be recreated or produced without the expressed, written consent of AmeriLux. All information, recommendations, or advice given by AmeriLux employees or partners, written or oral, is given in good faith and is thought to be accurate and current. It is the responsibility of each product user to ensure the product is used in compliance with current environmental and legal requirements specific to each product application. AmeriLux and its partners will not be held liable for incorrect or improper use of its products.

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