Skytrim™ Cellular PVC for Trim, Moulding, Profiles and Fabrication



INSTALLATION GUIDE

GENERAL

- Skytrim[™] is a highly versatile product for many exterior and interior trim and decorative applications.
- Skytrim products should never be used for structural or load bearing applications.



STORAGE AND HANDLING

- Store Skytrim[™] off the ground, fully supported on a flat and level surface. Because Skytrim products are more flexible than wood, they may conform to uneven surfaces.
- Skytrim products are shipped from the manufacturer with a protective cover. If the pallet cover has been removed, take additional care to keep product free of dirt and debris at job site.
- Always store under the protective vinyl cover and replace cover after removing some material to ensure the rest of the product remains clean and edges precise.
- Protect from forklift damage and debris.
- For products with protective film, remove film directly after installation. Protective film should not be left exposed for more than 90 days.
- Retain protective corners and bands on each skid to help keep boards straight.
- Skytrim recommends that inventory should be rotated every six months.



CUTTING

- Skytrim products can be cut with the same tools used to cut lumber. Carbide-tipped blades that are designed to cut wood perform well. Avoid using fine-tooth metal cutting blades.
- Rough edges from cutting may be caused by excessive friction, inadequate board support, worn blades, or incorrect tools.

Circular Saws Carbide-tipped, triple chip, ground-type circular saws can be used. The following settings are recommended: Rake Angle Clearance Angle Cutting Speed Feed Tooth Pitch 0-15 10-20 4,000-8,000 70-90 ft. per minute ft. per minute

Band Saws High-speed steel blades recommended for wood or plastic can be used for Skytrim products based the following guidelines: Teeth per inch Cutting Speed Feed 3,000 – 5,000 Up to 40 ft. per minute

Saber Saws

Rough-cut type blades ground for plastics can be used on Skytrim sheets. Smooth metal-cutting blades are not recommended.

DRILLING

Skytrim products can be drilled with carbide-tipped bits using twist drills recommended for metals. The following settings are recommended:



Point Angle	Spiral Angle	Relief Angle	Cutting Speed	Feed rate
Between 90-110	30	10	150-1,300 ft. per minute	0.01" – 0.02" per rev

The minimum distance from the edge should be 2 times the hole diameter.

In an effort to reduce heat buildup during drilling of thicker Skytrim material, it may be necessary to periodically remove the drill bit.

MILLING

Skytrim[™] products can be milled using standard milling machines of various types, following these guidelines:

Relief Angle	Rake Angle	Cutting Speed	Cutting Speed
5-10	-10 – 0	3,000 – 3,500 feet per minute	0.12" per rev



ROUTING

Routing Skytrim products provides a crisp, clean edge. Skytrim can be easily routed using standard router bits and the same tools used to rout lumber. Adjust feed and speed rates as needed to achieve the best edge finish. Carbide tipped router bits are recommended.



THERMAL EXPANSION & CONTRACTION

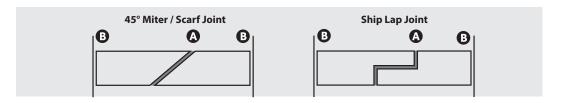
As with most plastics, Skytrim products will expand and contract with an increase or reduction in temperature. This material property is known as the coefficient of linear thermal expansion (CLTE). By comparison, wood expands and contracts due to changes in moisture content.



Because Skytrim products can be used in a wide variety of indoor and outdoor applications, linear thermal expansion and contraction should be considered during the fabrication and installation of the material. That means it is important to take into account the temperature of both the product and the environment when determining gapping during installation.

When properly fastened, allow 1/8 inch per 18 foot of Skytrim product for expansion and contraction. Joints between pieces of Skytrim should be glued to eliminate joint separation. When gaps are glued on a long run of Skytrim, allow space for expansion and contraction at each end of the run. **See "Gluing and Bonding" section, pg 5**.

Temperature Dictates Gap Requirements					
Ambient Temperature	Joint Gap (A)	End (B)			
100° F (38° C)	Tight	Tight			
50-100° F (10-38° C)	1/8"	1/16"			
>50° F (10° C)	>1/8"	>1/16"			



THERMAL EXPANSION & CONTRACTION CONT.

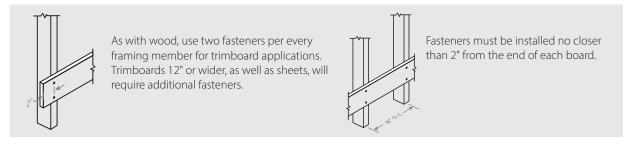
Skytrim products should not be used in applications or climatic conditions that exceed 140° F (60° C) ambient or surface temperature. At this temperature, Skytrim products will soften and permanently deform.

For this reason, paint color selection must also be considered, because darker colors absorb heat more than lighter colors and can easily exceed the maximum allowable temperature of 140° F (60° C). **See "Painting" section, pg 6.**



FASTENING

- For best results, use Cortex® fasteners and plugs. **See below.**
- Standard nail guns also work with Skytrim[™] products. Use a highly durable fastener such as hot dipped galvanized or stainless steel.
- Staples, small brads and wire nails must not be used.
- Fasteners should be long enough to penetrate the solid wood substrate a minimum of 1-1/2".
- Skytrim should be fastened to a flat, solid substrate. Fastening Skytrim into hollow or uneven areas must be avoided.
- Pre-drilling is not required when using Cortex fasteners or nails, unless the product is installed in low temperatures typically 40°F (5° C) or lower.
- 3/8" and 1/2" sheet products are not intended to be ripped into trim pieces. These profiles must be glued to a substrate and mechanically fastened.



SPANNING

Skytrim product must not be used in load-bearing applications, but may be used in spanned applications such as soffits and ceilings.

Soffit Installations

- For spans of 16" 24", use a 1" Skytrim product.
- When using Skytrim bead board, fasten every 12" or less.
- Install Skytrim bead board perpendicular to structure.

Ceiling Installations

- For spans of 16" 24", use a 1" product.
- With Skytrim bead board or thinner (<1/2") Skytrim product, fasten every 12" or less.
- 16" spans are acceptable with Skytrim bead board with nailing strip.
- Never span Skytrim products more than 24".



Customized for Skytrim Profiles, Sheets and Accessories

The Cortex Hidden Fastening System combines the strength of a face-fastened connection with the beauty of a hidden fastener. It's the fastest, easiest way to hide fastener heads when installing Skytrim products.

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- Available in smooth or woodgrain finish
- Available with matching plugs for white, clay and sand color Skytrim products
- Fast and easy to install
- Preset bit included
- Limited lifetime warranty
- Made in the USA

GLUING AND BONDING

Skytrim[™] material can readily be bonded to itself or other materials. Commercially available adhesives that are suitable or bonding rigid PVC materials can be used for this purpose. **See "Adhesives" section below.**



- The material to be bonded with Skytrim
- Strength required structural vs. nonstructural
- Temperature range expected
- Epansion/contraction accommodation
- Ease of application methods and curing times
- Cost effectiveness
- Environmental and safety considerations (flammability, fumes, orders)

General Gluing/Bonding Tips

- Always "glue & screw" joints together. Mechanical fastening is always required do not rely on adhesives alone to secure Skytrim product to a substrate.
- Glue Skytrim-to-Skytrim joints (window surrounds, long fascia runs, etc.) with adhesive approved for use with PVC trimboard.
- The glue joint should be secured with a fastener and/or fastened on each side of the joint to allow adequate bonding time.
- Some adhesives have a very limited working time, so read the manufacturer's instructions carefully before use.
- For best results, surfaces to be glued should be smooth, clean and in complete contact with each other.
- To attain the optimum bond, the Skytrim material surfaces must be cleaned and degreased using a clean white cloth soaked in isopropyl alcohol.
- When using PVC solvent (such as pipe cement) over a large area, spread with notched trowel and work rapidly.
- To bond Skytrim to other substrates, various adhesives may be used. When in doubt, always consult the adhesive manufacturer to determine suitability. **See "Adhesives" section.**





ADHESIVES

The adhesives listed here are not comprehensive, but do represent popular products. Please perform the appropriate tests to ensure that the materials will produce desired results. Always consult the adhesive manufacturer if you have any doubts or questions.

Bonding Skytrim Products						
Bonding to Skytrim	Bonding to Wood	Bonding to Metal	Bonding to Concrete or Brick			
Weld-On 705 Titebond Christy's Red Hot	Liquid Nails Subfloor or Heavy Duty Construction NPC Solar Seal 900 Polyurethane-based Adhesives	PVC TrimWelder Two Component Methacrylate	PVC TrimWelder NPC Solar Seal 900			
PVC TrimWelder						



PAINTING

- To reduce the need for painting, Skytrim products are available in three colors: white, sand and clay.
- Skytrim product does not require paint for protection, but it can be painted to achieve a desired color.
 See "Selecting the Right Paint," below.
- Use paints that are 100% acrylic latex or acrylic latex with a urethane additive.
- Use only stock colors that are compatible with PVC trim. If you have a custom color mixed, it is possible that incompatible materials may be added to the paint during the custom blending process.
- Follow the paint manufacturer's recommended procedures for preparation and application.
- No special surface preparations are required prior to painting. Just ensure the Skytrim surfaces are clean, dry and free of dust.
- Fine dust can collect on the surface of Skytrim due to static. To ensure a dust-free surface that will promote good paint adhesion, leave the protective film in place and remove just prior to painting.
- If the protective film has been removed, wipe trimboards with a rag moistened with isopropyl alcohol prior to painting, or mild detergent and water.
- Skytrim is not liable for paint used on trimboard and/or the results of its use.



IMPORTANT: SELECTING THE RIGHT PAINT

Any PVC trimboard can become warped or distorted as a result of heat absorption that is beyond the product's tolerance. To prevent this, be sure to ask for paint colors with a Light Reflectance Value (LRV) of 55 or higher. If you use a color with an LRV of less than 55, it must be formulated as "siding safe" for use on vinyl/PVC products.



Skytrim products feature a protective film to help prevent fine dust from adhering to the material surface, which can inhibit paint adhesion. Please remove protective film directly after installation. Protective film should not be left exposed for more than 90 days.

NOTES









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