

VERSATEX Installation Guidelines

Always reference local building codes and use materials that comply with local building codes and meet Versatex Installation Recommendations.

Cutting (See Technical Bulletin C-1 for more details)

- Carbide-tipped blades with fewer teeth are preferred (a 32-tooth blade is optimal).
- Rough-cut edges are typically caused by excessive friction, poor board support, or worn or improper tooling.

Drilling (See Technical Bulletin C-1 for more details)

- VERSATEX can be drilled using standard woodworking drill bits. Do not use drill bits made for rigid PVC.
- Point angle: 90°-110°, spiral angle: 30°, Relief angle: 10°
- Remove shavings periodically from a drill hole as necessary to avoid heat build-up.

Routing (See Technical Bulletin C-1 for more details)

- Standard woodworking carbide-tipped bits with multiple flutes are recommended.
- Always start a run with new or resharpened tooling.
- Secure VERSATEX to a fixed object before routing.

Tip: Sand with 320 grit sandpaper and wipe down cuts with solvent to clean and “reseat” cells to reduce dust and dirt build-up.

Tip: Use tooling that creates small radiuses rather than 90° angles to prevent stress cracking at cut corners.

Tip: Spray router and yourself with Static Guard to keep dust off you and your equipment.

Milled (CNC)

- Carbide tooling is recommended.
- Use a single edge upcut spiral bit at a chip load of 0.016” (0.040cm) to 0.018” (0.045cm). Run tools at 18,000 RPM’s or greater and feed speeds between 250-275 in/min (approx 20 - 25 FPM or 6.35-6.99 m/min)

Moulding

- Standard wood working machinery is acceptable with speeds of 8,000 RPM’s or greater (the higher the RPM’s, the smoother the surface). Feed rates are profile dependent. For basic cuts, feed rates of 30-50 feet per minute (9.14-10.67 m/min) yield best results.

Tip: Sharp tooling made of carbide or high speed steel, hold down clamps and optimum dust collection will produce a premium finish.

Fastening

- Use 8d nails designed for wood trim and siding that have thin shanks, blunt points and full round heads. Annular threads are a plus, especially during cold weather installations.
- Fasteners must penetrate a full 1 1/4” (3.175cm) into substrate (stud or joist).

- Fasten 2” (5.08cm) maximum from end of boards.
- Avoid fastening VERSATEX over hollow or uneven areas. Fasten VERSATEX onto flat, solid substrates.
- Stainless fasteners are preferred over galvanized – Less chance of corrosion. (galv.stripping off fasteners)
- Nail guns can be used – PSI between 80-100 dependent upon gun, nail, outside temperature and substrate. Care should be taken not to overdrive the nail into the material.
- Use 7d trim screws for increased mechanical hold strength.
- In temps under 40°F (4.44°C) pre-drilling may be required, depending on the fastener used.
- 3/8” (0.953cm) and 1/2” (1.27cm) VERSATEX Sheet and Beadboard are not designed to be ripped and used for trim applications.
- These products must be glued and fastened to the substrate.

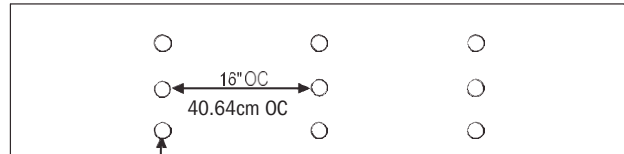
Fastening Schedule

To best control movement of boards.

Board Width	Fasteners per width a maximum of every 16” on center
4” & 6”	10.16cm & 15.24cm 2
8” & 10”	20.32cm & 25.4cm 3
12”	30.48cm 3-4
16”	40.64cm 4-5

Fastening Pattern

Example: 12” (30.48cm) Board Below



Apply 3 fasteners every 16” OC (40.64cm OC)

Recommended Fastener Screws

- Fasten Master Cortex Screw/Plug System.
- Pro Plug Plug/Screw System by Starborn Industries.
- Simpson Strong-Tie 2 1/4” (5.72cm) TrimScrew or Equal (for 1X and 5/4X boards).

Recommended Fastener Nails

- 8D Nails with Annular threads (ex. Simpson Strong-Tie Trifecta Nail). The Trifecta Nail is available collated for use with a variety of nailing guns.

Sealants and Adhesives

We recommend using the sealants and adhesives listed below in addition to mechanical fasteners. Versatex should never be fastened with an adhesive or sealant alone. Please refer to the recommended fasteners section to determine which fastener to use.

- PVC Cements: Weld-On #705 or Christy's Red Hot.
- Methacrylates with UV Inhibitors (2 components) – PVC TrimWelder by Extreme Adhesives.

Tip: Always apply adhesives to one piece of VERSATEX and press together to get a superior bond.

- NPC Solar Seal 900; Quad by OSI; Geocel 2300 Tripolymer Sealant; Various urethane Sealants.

*Preferred sealant should be polymer-based, containing solvents. Do not use silicone.

*Bonding VERSATEX to Itself

- Weld-On 705 PVC adhesive or Christy's Red Hot
- PVC TrimWelder by Extreme Adhesives

*Bonding VERSATEX to Wood

- NPC Solar Seal 900
- Polyurethane based adhesives (PL's or equivalent)

*Bonding VERSATEX to Metal

- PVC TrimWelder two component meth acrylate by Extreme Adhesives

*Bonding VERSATEX to Concrete or Block

- PVC TrimWelder by Extreme Adhesives
- NPC Solar Seal 900

**Must be used in conjunction with mechanical fasteners.*

**Most PVC cements cure in 3-5 minutes and have a limited working time.*

**Always test sealants and adhesives for compatibility before applying.*

Filling Nail Holes

- Best Method: Cortex Concealed Fastening/Plug System for PVC Trim or Starborn Pro Plug/Screw System
- DAP Platinum Patch Advanced Exterior Spackling Paste

Expansion and Contraction

Movement occurs due to temperature fluctuations. This movement is restricted to the length of the product. The product will not swell or shrink like wood experiencing a moisture cycle. VERSATEX, like any PVC trim, will expand (lengthen) when it warms and contract (shrink) when it cools.

Tips on Expansion and Contraction

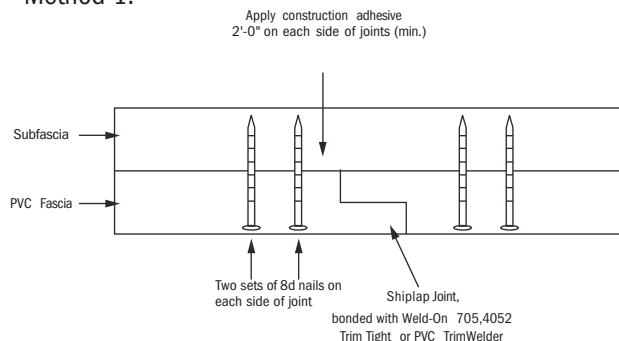
- Expansion and contraction is ONLY an issue on longer "runs" (rake, fascia, frieze) comprised of three or more 18' (5.49m) boards (short lengths, around windows for example, can and should be built with tight joints).
- The more the product is mechanically fastened or bonded on longer runs, the less likely it will move.
- Screws restrict movement more than nails.
- As a rule, if you can bend the fastener in your fingers it is too thin (no wire or brad nails). 18 galv. and 16 galv. trim nails are not recommended.
- You can further restrict movement on longer runs by reducing on center fastening to 12" (30.48cm).
- Board movement is typically seen on walls with southern exposure, or areas where product is in direct sunlight.
- All joints in high traffic or visible areas should be glued tight. Expansion/Contraction joints should be placed in inconspicuous areas along the run of trim.
- Allow VERSATEX to acclimate to outside temperature before installing—if possible install long runs when boards and outside temperature are approximately 60-70°F (15.56-21.1°C).
- Shiplap joints offer a superior joint, especially on long runs.

Best Practice to Control Expansion and Contraction at Board Joints

Method #1: Glue the Joints Secure (HighTrafficAreas)

1. Shiplap the boards at the joint, and glue the boards together with VERSATEX Weld-on #705 or another acceptable PVC cement.
2. When possible, apply construction adhesive to back side of boards. A heavy-duty construction adhesive works well when attaching a VERSATEX fascia board to a subfascia.
3. Double fasten on both sides of joint (remember screws work best). Use proper amount of fasteners based on width of boards.
4. If necessary, allow for movement at the ends of the boards or at inconspicuous joints

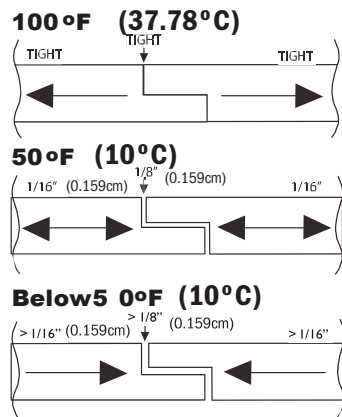
Method 1:



Method #2: Leaving an Expansion Joint

1. Based on temperature at time of installation (see chart below) create a gap between boards.
2. Follow proper fastening methods previously outlined.
3. Place UV-resistant acrylic-based or polymer-based sealant in joint between boards (NPC Solar Seal #900 or equal is recommended).
4. Never completely fill joint with sealant. Leave room to compensate for joint closure.

Method 2:



Heat Forming/Bending

- VERSATEX can be easily formed into a variety of shapes by heat forming or bending. See Technical Bulletin Nos. A-1 and A-2 for more information.

Painting

VERSATEX does not require painting for protection. Use paints that are 100% acrylic latex or acrylic latex with urethane additive.

****CAUTION: PAINTING ANY CELLULAR PVC TRIM, INCLUDING VERSATEX, DARK COLORS, CAN RESULT IN POOR PERFORMANCE AND WILL VOID THE WARRANTY. USE PAINTS WITH A LIGHT REFLECTIVE VALUE (LRV) OF 55 UNITS OR GREATER.**

■ Options for Dark Colors

There is a limit to how dark a paint can be applied to VERSATEX or any cellular PVC trim. The issue is the amount of heat absorbed relative to the heat distortion temperature and (coefficient of thermal linear expansion (CTLE) of the product.

On a scale of 0-100 – with 0 being black and 100 being white – LRV quantifies the amount of light a paint color will reflect or absorb. Absolute black will absorb all light and “heat”, while pure white will reflect all light. Paint colors for cellular PVC trim have been limited to mid-tones, or any LRV above 50.

After extensive research and development, PPG has introduced an IR heat reflective paint for both factory finishing and field application (see chart below). Please consult Versatex for a list of the PPG colors.

Although PPG can produce custom IR heat reflective paint colors, they will not recommend them without extensive testing. VERSATEX exhibits excellent paint adhesion when tested in accordance with ASTM D 3359 Cross-Cut Tape Test, Adhesion Strength Test.

Although VERSATEX does not require paint for protection, it readily accepts 100% latex, latex acrylic, or latex acrylic with urethane additives. Since moisture is not present in VERSATEX, paint lasts longer on VERSATEX than on wood.

Tips on Painting

- To obtain adequate paint adhesion, be sure the surface of the VERSATEX Trimboard is clean, dry and free of dirt, loose or peeling paint, mildew, chalk, grease and any other surface contaminants before applying paint. Use a mild detergent (Spic 'n Span®) and water or denatured alcohol for cleaning.
- Paint can take up to 30 days to fully cure depending on outside temperatures and humidity conditions.
- Follow the paint manufacturer's surface preparation and application recommendations.
- Before painting, remove any mold or mildew using a mixture of three parts water and two parts bleach.
- If you paint VERSATEX a dark color, you must first remove it before applying a lighter color paint with an LRV of 55 units or greater.
- Paint life is longer when applied to VERSATEX versus wood due to the absence of moisture in our trim.

Cleaning

- VERSATEX will not support mold and mildew growth. (ASTM G-21-96)
- If products get dirty, clean with products like Soft Scrub® with Bleach, Spic 'n Span®, Clorox® Regular Bleach, Clorox® Clean-Up®, Clorox® Outdoor Bleach Cleaner, OxiClean™, or Corte Clean. Use a nylon brush for stubborn stains. Use 320 grit sandpaper to reduce cell size on cut edges of boards.
- Test any cleaner on an inconspicuous area before use.

Storage and Handling

- Store VERSATEX on a flat level surface as it has a tendency to conform to the surface on which it is stored.
- Handle VERSATEX as you would a premium lumber to avoid damage.
- Keep VERSATEX free of dirt and debris. Clean VERSATEX after installation as described above.
- Do not store or place on asphalt or in areas prone to excessive heat build-up.

Moisture

- VERSATEX can be installed at or below grade, as it does not absorb moisture. VERSATEX is perfect for use in moisture-prone applications such as garage door jambs, column wraps, ground contact, masonry contact, hot tub surrounds, and at rooflines.

Safety

- All machining should be done in a well ventilated area.
- Safety glasses should be worn whenever you are working with VERSATEX.
- When cutting with a power saw, a dust mask is recommended.