

PVC Product Storage, Handling & Finishing

INCLUDING SUPERCOMP™ FRAMES STANDARD OPERATING PROCEDURE

GENERAL INFORMATION

PVC products, including SuperComp™ PVC Door Frame, Mull Post, Brickmold, S3S Board, Base Shoe, Quarter Round, Door Stop, Crown, or Screen Bead products (the “Products”) can be successfully painted or stained to match a desired finish. Because PVC is a non-porous material, proper storage, surface preparation, and product selection are critical to achieving a durable, long-lasting result. Following these instructions will help ensure optimal adhesion and performance.



Surface preparation is the single most important step. Skipping or rushing prep will result in poor adhesion and premature finish failure.



CTI is not liable for paint used on our products and/or the results of its use. Always follow the paint manufacturer’s recommendations for application and paint warranty inclusion.

STORAGE & PRE-FINISHING HANDLING

Proper storage prior to finishing is essential to prevent damage and ensure the best possible coating result.

- Store product on a flat, level surface out of direct sunlight.
- Keep product free of dirt, debris, and moisture during storage.
- Ensure the product is dry and acclimated to room temperature before beginning any surface preparation or finishing work.
- Protect stored products from physical damage, stacking pressure, and contamination.

SURFACE PREPARATION

Thorough surface preparation is required before applying any primer, paint, or stain. PVC is non-porous, so adhesion depends heavily on this step.

- Inspect products for dirt, oil, mold release, or handling residue.
- Clean the entire surface using a mild detergent, TSP solution, isopropyl alcohol (IPA), denatured alcohol, mineral spirits, naphtha, ammonia, or an approved plastic cleaner. Allow to dry completely.
- Lightly scuff sand the surface using 220–400 grit sandpaper to create a mechanical bond for the coating to adhere to. Light, even passes are sufficient—do not sand aggressively.
- Remove all sanding dust using compressed air, a tack cloth, or a clean lint-free cloth.

PVC is non-porous. Without proper cleaning and scuff sanding, coatings will not adhere regardless of product quality.

PVC Product Storage, Handling & Finishing

INCLUDING SUPERCOMP™ FRAMES STANDARD OPERATING PROCEDURE

PRIMER APPLICATION

A bonding primer promotes adhesion between the PVC surface and the topcoat. While priming is recommended for best results, some SuperComp® product applications may not strictly require it. Check with your paint manufacturer's requirements, as some manufacturers require priming to obtain full warranty value.

- Use a high-quality plastic adhesion promoter or PVC-compatible bonding primer.
- Apply a thin, even coat via spray or roller.
- Target film thickness: 10–20 microns.
- Allow proper flash time per the supplier specification (typically 10–30 minutes).
- Allow primer to dry fully per manufacturer's instructions before applying any topcoat.

Recommended Primers

The following primers are recommended for use on PVC products before applying the topcoat:

- BASF Parrot 285-55 Primer
- Sherwin-Williams Special PVC Surface Primer
- Sikkens 3400 Primer

Some co-extruded PVC products may skip primer if the topcoat system is specifically formulated for direct adhesion to PVC. Verify with the coating manufacturer.

SANDING AFTER PRIMER

If required by the coating system, a light scuff sand between primer and topcoat will improve intercoat adhesion.

- Lightly scuff sand primed surface with 400–600 grit sandpaper.
- Remove all dust thoroughly with compressed air or a tack cloth before applying topcoat.

TOPCOAT APPLICATION—PAINTING

Select a coating system appropriate for PVC substrates.

Recommended Products

- Use a high-quality, exterior-grade, 100% acrylic latex paint or a water-based polyurethane coating specifically formulated for PVC and plastic surfaces.
- Do not use oil-based paints unless the product is specifically rated for PVC substrates.

Color Selection & LRV Requirements

Use a light color with a Light Reflective Value (LRV) equal to or greater than 55 (Flat Black = 0, Pure White = 100). Light colors minimize heat absorption and reduce the risk of warping or distortion on PVC substrates.

PVC Product Storage, Handling & Finishing

INCLUDING SUPERCOMP™ FRAMES STANDARD OPERATING PROCEDURE

DARK COLORS (LRV 50 OR LOWER)

Dark colors absorb significantly more heat than light colors. If a dark color is used, excess solar heat may cause the PVC to warp, distort, blister, or peel due to extremes of thermal expansion and contraction. This is especially evident in hot climates with direct sunlight exposure.

If a dark color is desired, use a high-quality heat-reflective paint such as Sherwin-Williams Vinyl Safe™ or equivalent, and apply according to the paint manufacturer's instructions.

Failure to use heat-reflective dark color paints on CTI PVC products will void the warranty.

Application Method

- Apply in thin, even coats. Two coats are recommended for full coverage and durability.
- Maintain consistent film build: 25–40 microns per coat.
- Ensure even coverage on all edges, corners, profiles, and exposed ends of the frame.
- Allow proper dry time between coats per the paint manufacturer's instructions.

Environmental Conditions

- Avoid applying paint in direct sunlight, extreme heat, or high humidity.
- These conditions can affect adhesion and finish quality.
- Always follow the paint manufacturer's recommendations for application conditions.

TOPCOAT APPLICATION—STAINING

Staining is an alternative to painting for achieving a wood-tone appearance on PVC products.

- Use a stain product specifically formulated for PVC, composite, or non-porous surfaces. Standard wood stains will not adhere properly and are not recommended.
- Apply the stain sparingly in thin, even coats using a brush, soft-bristle brush, cloth, or foam applicator.
- Brush lightly in the direction of the wood grain pattern (if applicable).
- Build color gradually with additional coats as needed. Allow full dry time between each coat.
- Remove any excess stain runover before it dries.
- A 2-step staining process is recommended for the most desirable level of adhesion.
- Once the desired color is achieved, apply a clear topcoat or sealer compatible with the stain product to protect the finish and improve durability.

DRYING & CURING

Proper curing is essential for finish durability and handling readiness.

- Air dry or oven cure depending on the coating system used.
- Typical oven cure temperature: 40–60°C (104–140°F).
- Ensure full cure before handling or packaging.

PVC Product Storage, Handling & Finishing

INCLUDING SUPERCOMP™ FRAMES STANDARD OPERATING PROCEDURE

Avoid overheating. PVC can deform at elevated temperatures. Always follow the coating manufacturer's cure schedule and never exceed recommended temperatures.

QUALITY INSPECTION

Inspect every finished product before release. Check for the following:

- **Adhesion:** Perform cross-hatch adhesion test per ASTM D3359 or equivalent.
- **Surface Defects:** Check for runs, sags, orange peel, pinholes, fisheyes, or bare spots.
- **Color Consistency:** Compare against approved color standard or sample.
- **Film Thickness:** Verify with mil gauge or coating thickness meter.
- **Edge Coverage:** Verify all edges, corners, exposed ends, and profiles have full, even coverage.

HANDLING & PACKAGING

- Use clean gloves to prevent contamination of finished surfaces.
- Avoid stacking products before full cure is achieved.
- Protect finished products with foam separators, interleaving paper, or protective wrap to prevent scratching.

CRITICAL CONTROL POINTS

The following parameters drive finish quality and must be controlled:

Control Point	Specification	Why It Matters
Storage	Flat, level surface; out of direct sunlight; free of dirt/debris	Prevents pre-finishing damage, warping, and contamination
Surface Preparation	Clean, scuff sand (220–400 grit), remove dust	PVC is non-porous; adhesion depends entirely on prep quality
Primer Selection	PVC-compatible adhesion promoter; 10–20 microns	Incorrect primer leads to peeling and delamination
Coating System	Exterior-grade 100% acrylic latex or polyurethane; 25–40 microns/coat	Must be formulated for PVC substrates
Color / LRV	Light colors: LRV $\geq$ 55; Dark colors: heat-reflective paint required	Dark colors absorb heat causing warping; LRV $<$ 50 voids warranty without heat-reflective paint
Film Thickness	Primer: 10–20 μ m Topcoat: 25–40 μ m per coat	Under/over-application causes adhesion failure or defects
Curing Temperature	40–60°C (104–140°F)	Overheating causes PVC deformation; undercuring weakens finish

PVC Product Storage, Handling & Finishing

INCLUDING SUPERCOMP™ FRAMES STANDARD OPERATING PROCEDURE

IMPORTANT NOTES

- Always test paint or stain on a small, inconspicuous area or offcut before applying to the full product.
- Do not use oil-based paints or stains unless the product is specifically rated for PVC substrates.
- All dry times, recoat windows, and application methods should follow the specific coating manufacturer's recommendations.
- If using reflective paint, ensure it is specifically designed for PVC. Clean and degrease the product, lightly sand the surface, and apply a plastic primer or adhesion promoter before painting.
- Painting dark colors or installing behind a storm door can cause heat damage not covered by warranty.
- All edges and exposed ends of the product should be painted for complete protection.
- Always follow the paint manufacturer's recommendations for application.

WARRANTY NOTICE

Finishing or coating PVC product is performed at the end user's discretion. Surface preparation, product selection, and application technique are outside of our control. Any issues resulting from improper finishing, incompatible products, or failure to follow these instructions are not covered under warranty.

Failure to use heat-reflective dark color paints on CTI PVC products will void the warranty. CTI will not be responsible for repair or replacement of any resulting damage due to distortion, warping, buckling, shrinkage, paint blistering, or peeling of paint on the PVC product.

If you have questions or need additional guidance, please contact our team.