



## PVC

### PREPARATION, INSTALLATION AND FINISHING GUIDELINES

Fuller Architectural Panels should be installed using the same good building principles used to install wood-based materials and in accordance with the local building codes and the installation guidelines included below. Fuller Architectural Panels accepts no liability or responsibility for the improper installation of this product. Fuller Architectural Panels may not be suitable for every application and it is the sole responsibility of the buyer to ensure the products are fit for the intended use. Since all installations are unique, it is also the buyer's responsibility to determine specific requirements regarding each application.

**PLEASE NOTE: DOUBLE MILL PANELS HAVE A FRONT AND BACK SIDE, CONFIRM CORRECT SIDE(S) ARE SPECIFIED PRIOR TO FINISHING AND INSTALLATION**

**ALWAYS PRIME AND PAINT ALL SURFACES REGARDLESS OF APPLICATION.**

#### STORAGE AND HANDLING

Store on a flat and level surface out of direct sunlight.

Keep product free of dirt and debris. Clean with warm water and detergent.

#### FASTENING AND JOINING

How do I manage expansion and contraction of PVC?

PVC is a polymer-based product that will expand and contract with changes in temperature.

The main consideration is to plan for lengthwise expansion and contraction of material. If not accounted for, PVC can buckle or develop unsightly gaps. The key element is to choose the right joints to fasten in place while allowing other joints to move. The movement can be concealed with a shiplap joint or by leaving space for the board to expand behind a butt joint or a feature board. For outside corners, cement and mechanically fasten mitered outside corners together to keep them from opening as the boards move. For inside corners you can use butt joints to hide movement. When using scarf joints, you must allow for movement in the run. PVC material can be cemented together at the joint and the boards will move as one. Allow for movement with a shiplap. For longer runs to account for movement, the more the material is fastened and bonded, the less it will move. Also, you must double fasten on both sides of "pinned" joints.

Fastening in temperatures above 80°F, the board joints should be tight. In temperatures of 40°F to 60°F, leave 1/8 inch of space. When it's less than 40°F degrees, provide for 3/16 inch between boards. Sheet fastening is maximum 16" on center horizontally and maximum 12" on center vertically with a minimum every 16" on center throughout entire sheet. **WARNING:** Dark colors will significantly increase movement such as expansion and contraction of material therefore, the on-center spacing specification along with adhesive must be used in conjunction with a solid backer material. All fasteners must hit solid framing members. The fasteners should be long enough to penetrate the substrate a minimum of 1-1/2".

**Interior Wall Applications** – every 24" in horizontal and horizontal directions and as needed due to irregular surfaces.

**Exterior Wall Applications** – fasteners applied every 12" on center in vertical and horizontal directions.

**Ceiling and Exterior Applications** – glued to a substrate required using construction adhesive or 2-part epoxy plus mechanical fasteners every 12" on center in both directions. Test adhesive prior to installation.

**Do you have to predrill before nailing?**

If nailing product at 40°F or below, predrilling is required.

**How do you fasten material?**

You can also use fasteners designed for wood trim. They should have thin shanks, blunt points and full round heads. Fasteners should penetrate 1½" into substrate. Fasteners should be positioned no less than ¾" or more than 2" from end of boards. Fasteners must be weather resistant, such as stainless steel. For interior trim, such as casing, base, quarter round and crown, use 16-gauge finish nails, 6d or 8d finish nails. Pneumatic guns can be used - rubber bumpers on the nail gun tooling will protect the molding. Air pressure should be adjusted based upon gun, temperature, substrate (80-100 psi is typical). Always use the least pressure necessary to drive the nail into the product. Material should be fastened to a flat solid surface. In cold weather below 40°F, predrilling is necessary. Do not use brads or wire nails.

For Concrete/Masonry/Brick: – Apply masonry adhesive sealant (always follow manufacturer's instructions) to the surface of concrete first. Secure with Tapcon™ masonry fasteners. What should I use to fill screw or nail holes and/or cracks?

- 3M 4200
- Extreme Adhesives Fill & Flex®
- Dap® Platinum Patch®
- OSI QUADMAX
- Sashco Big Stretch High Performance Elastic sealant
- Sherwin Williams Shrink Free Spackling®
- Crackshot High-Performance Spackling Paste

**ADHESIVES**

You can use acrylic, urethane, or polyurethane caulk. Mechanical fasteners are always required for exterior and interior ceiling applications. User needs to follow manufacturer's instructions. Adhesives are not covered by our warranty. Listed below are manufacturers that have formulated adhesives to work with:

**PVC to PVC**

- Weldon 717 White or Clear (top choice)
- Weldon 705 White or Clear (top choice)
- Christy's Red Hot (top choice)
- DAP® DynaGrip
- DAP® Rapid Fuse
- Titebond Ultimate PVC Trim Adhesive & Sealant
- Titebond PVC Trim Joint Adhesive
- Extreme Adhesives PVC Trim Welder®
- ZeVo 1 Part Cellular PVC Adhesive® for use with Royal Building Products
- FastCap 2P-10 Adhesive & Activator

**PVC to Wood**

- Liquid Nails® Heavy Duty

Liquid Nails® Subfloor  
Loctite PL Premium  
Loctite PL Max  
Loctite PLX8 PVC to Masonry  
Liquid Nails® LN950 Construction Adhesive  
Liquid Nails Fuze\*It  
NPC Solar Seal® 900

#### PVC to Steel

NPC Solar Seal® 900  
Liquid Nails Fuze\*It®  
Liquid Nails® LN950 Construction Adhesive

#### PRIMER AND FINISH PAINT

Does cellular PVC trim and/or cellular PVC require painting? No. Cellular PVC does not require painting but, like any cellular PVC product, it will weather over time and painting will enhance these beautiful products to maintain color consistency for many years. Our cellular products are ready for painting. Painting with a good quality, vinyl safe 100% Acrylic Latex paint will further protect products to maintain color consistency for many years. Our Warranty does not cover painted finishes or coating applied to the product by the original purchaser or any third party. Material must be painted within 5 days of outdoor UV exposure.

100% acrylic latex or 100% acrylic latex with a urethane additive should be used to achieve superior coating adhesion and flexibility. Lacquers are not recommended because lacquers are a more brittle coating and will not flex with movement in the material. Paints like Duration by Sherwin Williams, Manor Hall by PPG and Moorlife by Benjamin Moore adhere well to pvc. Sherwin Williams also offers a field applied coating under their "Green Seal®" product designation. Kem Aqua® BP Enamel is a water reducible polyurethane, acrylic top coat that offers fast dry times and no critical recoat times. Due to its excellent adhesion properties, it is an ideal coating for cellular PVC. A primer is not recommended, but if you prefer to prime the trim, use Aqua Kem® Bonding Primer E61W525 which also offer a field applied coating under their "Green Seal®" product designation.

#### Finish Coats (Interior)

- Benjamin Moore AURA Waterborne Interior Paint Benjamin Moore REGAL Select Premium Interior
- PPG® BREAKTHROUGH Can be used as a single coat primer or (3) coat finisher

#### Finish Coat (Exterior)

- Benjamin Moore® STIX primer
- Benjamin Moore® Command
- PPG® BREAKTHROUGH

Light Colors: Sherwin Williams Resilience or Benjamin Moore Aura

#### Primers:

- Excellent adhesion can be achieved by properly cleaning the board with a detergent or denatured alcohol before applying a top coat of paint.

- Benjamin Moore INSL-XStix Waterborne Bonding Primer; INSL-X Aqua Lock Plus Acrylic Primer Sealer

Dark Colors: Consult with your paint supplier. WARNING: should you choose to paint a darker color (LRV of 60 or lower) the buyer understands that you are significantly increasing the potential of deformation therefore eliminating the product warranty. Some companies like Sherwin Williams, Benjamin Moore, AquaSurTech and Blue River Coatings have developed heat reflective paint systems. Consult these paint manufacturers to determine the available color pallet, and the paint's compatibility with PVC.

#### CUTTING AND INSTALLING

High speed bandsaws and circular saws with a cutting speed of up to 3000m/min are recommended. Depending on the thickness of the sheets, saw blades with a tooth pitch of between 5 and 10mm are used. Carbide tip blades are recommended. To obtain clean edges to cuts and to avoid cracking, always clamp the material to keep it from vibrating. Install using conventional woodworking techniques. Glue all joints to prevent separation.

#### CLEANING

Clean the surface with warm, soapy water. Rinse thoroughly.

#### PRIMER AND FINISH PAINT

Does PVC require painting? No. Our Warranty does not cover painted finishes or coating applied to the product by the original purchaser or any third party. Material must be painted within 5 days of outdoor UV exposure. Multiple primer coats, with standard paint preparation, is required. Consult with your paint provider if selecting dark colors: WARNING: should you choose to paint a darker color (LRV of 60 or lower) the buyer understands that you are significantly increasing the potential of deformation therefore eliminating the product warranty. Always prime and paint all surfaces regardless of application.

#### PAINT TYPE GUIDELINES

When selecting the finish verify the coating has an LRV of 60 or higher. Definition of LRV (Light Reflective Value): LRV is the amount of light reflected from a painted surface. Black has a reflectance value of Zero (0) and absorbs all light and heat. White has a reflectance value of nearly 100. Light Reflective Values are given as a percentage. For example, a color with a LRV of 60 means it will reflect 60% of the light that falls on it. For darker colors (LRV of 60 or lower) use paints with heat reflective characteristics specifically formulated for use on polyurethane products. These paints/coatings are designed to reduce excessive heat gain. WARNING: should you choose to paint a darker color (LRV of 60 or lower) the buyer understands that you are significantly increasing the potential of deformation therefore eliminating the product warranty.

Exterior applications are constantly exposed to sunlight. When not reflected, light is absorbed as energy and converted to heat. Excessive heat will cause material to expand and contract. This results in bowing, buckling, or deformation of the product. To reduce the potential of damage, we strongly recommend determining the LRV of the coating and confirm the color does not fall below an LRV of 60.

*NOTE:* It is important to ensure that your choice of primer is compatible with the paint. Additionally, when using water-based primers, you must ensure the primer is 100% dry before proceeding to the paint stage. If there is any moisture left in the primer, and paint is applied, there is a high chance the water will try to "escape" through the surface of the paint. Please be careful! Water-based primer is notorious for appearing dry when it isn't.

## FINISHING STEPS TO CONSIDER BASED ON END RESULT SPECIFICATIONS

**PRODUCTS ARE PRODUCED UNFINISHED. WHEN FINISHING CONFIRM ANY IMPERFECTIONS ARE FILLED AND SANDED BEFORE PRIMING. MULTIPLE PRIMER COATS, WITH SANDING BETWEEN COATS, IS REQUIRED. MULTIPLE FINISH COATS WITH SANDING BETWEEN FINISH COATS MAY BE REQUIRED TO ACHIEVE DESIRED FINISH RESULTS.**

The higher the gloss finish the more critical it is to prepare the PVC correctly therefore consider the following steps:

1. Patch any pits or imperfections
2. Sand using 150 grit sandpaper
3. Sand using 220 grit sandpaper
4. High Build Primer coat
5. Sand with 220 grit sandpaper
6. Additional high build primer coat if necessary
7. Finish coat
8. Lightly sand finish coat
9. Finish coat then repeat if necessary

DISCLAIMER: Fuller Architectural Panels does not cover the performance of painted finishes or coatings applied to the product by the original purchaser or any third party. Fuller Architectural Panels may not be suitable for every application. It is the sole responsibility of the buyer to verify that Fuller Architectural Panels are fit for the intended use. Since all installations are unique, it is the buyer's responsibility to determine specific requirements regarding each specific application. Failure to comply with Fuller Architectural Panels Guideline will result in voiding of Warranty.