



EXTERIOR PVC, TRIM MOULDING & SHEET

INSTALLATION GUIDELINES

EX-CEL® PVC PRODUCTS



INTRODUCTION
EX-Cel® PVC Trim is
well suited for many
different applications.

Especially:

1. Any project where wood trim boards would traditionally be used.
2. Applications with the a potential for moisture exposure.
3. Applications where ground contact is necessary.

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HANDLING & STORAGE

- Care should be taken when handling boards. Do not drag material, it could cause damage.
- Material should be stored on a flat, level surface.
- Ideally the trim should be stored in a shaded area.
- Avoid storing on pavement or under a dark tarp, where ambient temperatures may exceed 120°F.
- Keeping Material covered will help keep dirt and debris off of the product.

BEFORE INSTALLING

- Ensure that all openings have been properly flashed and taped in accordance with local building codes.
- EX-Cel® PVC Trim should be installed over a weather resistant barrier system with a drainage plane that has been applied in accordance with the manufacturers' instructions.
- EX-Cel® trim should be installed over a solid backing.

EXPANSION & CONTRACTION

- EX-Cel® PVC Trim will expand and contract with the changes of temperature. Below are some guidelines to follow to determine how to size up your gap to compensate for seasonal thermal expansion and contraction.

If the outside temperature is:



- **75° to 95°F**, material is fully expanded, a small 1/32" gap between boards is recommended.



- **55° to 75°F**, material will be partially expanded. A gap of 1/16" to 1/8" between boards is recommended.



- **25° to 55°F**, material will be contracted. PVC material could expand up to an 1/8" per 18 foot length.

- Fill gaps with an acrylic or UV resistant caulk for sealing. (See BONDING & ADHESIVES section)

- Where appropriate, mill a scarf joint for a better-looking finish. (See SCARF JOINT section)



- When installing EX-Cel® PVC Trim when the temperature is consistently below 40°F, Pre-drilling is suggested.

CUTTING, DRILLING & ROUTING

There are no special tools that are required to work with EX-Cel® PVC Trim, sheet, or moulding.

- The same tools that are used for wood can be used.
- Traditional Carbide-tipped saw blades, carbide-tipped router bits, and woodworking drill bits will work best.

FASTENING

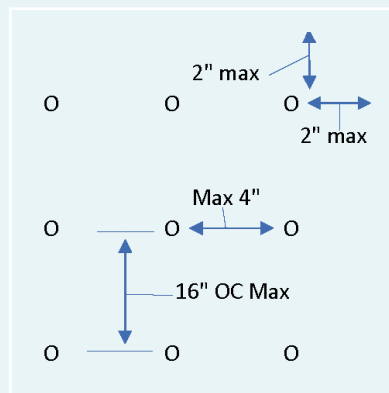
- Fasteners that are meant for wood trim and siding will work best. They will have a thin shank, blunt points, and full round heads.
 - 8d nails with annual thread shanks are recommended.
 - 15 gauge galvanized or stainless steel nails for mouldings.
- Stainless Steel Fasteners are preferred over galvanized nails.
- Exterior grade ring shank nails can be nailed or shot.
 - If using a power nail gun, it is recommended that the gun be capable of shooting a 15-gauge nail, using 80-100 psi.
 - A 1/16" - 1/8" nail set is optimal.
 - Be careful not to overdrive the fastener.
 - During Cooler Temperatures, annular threads are preferred.
- Starborn PRO PLUG® will be provided with your Standard and Specialty Trim and Corner Orders that are in 1"x and 5/4" thicknesses. We supply enough fasteners for the recommended fastening schedule. Additional Screws & Plugs may be purchased if desired.
- For Dark Pre-Finished Colors, in order to maintain warranty, 5/8" or higher thicknesses must be used, and Starborn PRO PLUG® are required.
- Must be installed over a flat, solid surface.
- Fasteners must penetrate solid wood by no less than 1-1/4".



Proper Spacing:

Following these Fastening guidelines will help reduce expansion and contraction of the product.

- Fasteners must be installed within 2" from the end of each board.
- 2 fasteners should be on each side of your joint.
- Along the length of the board, there should be no more than 16" on center.
- Along the width of the board, should be no further apart than 4".



Fastening Schedule (every 16" on center):
To help reduce the movement of the PVC board.

FASTENERS PER WIDTH

Width	No. Fasteners
4" & 6"	2
8" & 10"	3
12"	3-4
16"	4-5

- 3/8" and 1/2" thick material is not designed to be ripped and used for trim applications.
 - ⚠ If using these thicknesses, they must be glued and fastened to the solid substrate
- Wire Nails, Brads, and Staples should NOT be used to secure your PVC Trim.
 - ❌
- Pre-drilling is not necessary, unless you are installing in temperatures that are
 - ❄ consistently below 40°F

INSTALLING AT JOINTS

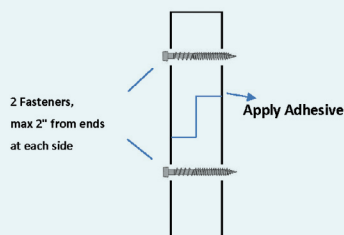
Using a Butt Joint is acceptable for our EX-Cel® trim.

- Butt the ends of the boards next to each other, taking into consideration the expansion and contraction guidelines.
- Use an Acrylic or UV Resistant Caulk for the joint.

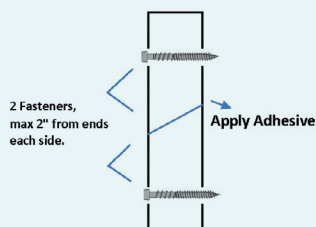
For long runs of trim, a scarf, miter or shiplap joint will provide the best looking joint that allows for expansion and contraction.

- For Scarf/Miter Joints, cut the ends of both boards at a 45° angle.
- Use our expansion and contraction guidelines listed in our install guide to determine the gap.
- Use an Acrylic or UV Resistant Caulk for the Scarf/Miter or Butted joint. (See Bonding and Adhesives section for suggestions.)
- Fasteners no more than 2" from the ends of the board should be in place on both sides of the joints.

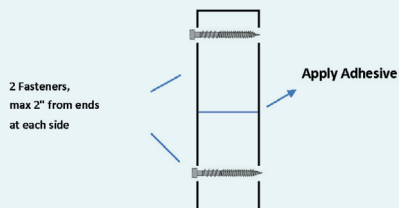
Shiplap Joint



Scarf/Miter Joint



Butt Joint



If installing joints when temperatures are below 50° F, leave an 1/8" gap to accommodate for the expansion in warmer weather.

BONDING & ADHESIVES

EX-Cel® can be bonded to a variety of substrates, as well as to itself. For best results:

- All surfaces to be glued must be smooth, clean, and in complete contact with each other.
- Always consult the adhesive manufacturer to determine suitability.
- Proper Ventilation and a clean environment are essential for adequate curing.
- Temperature will always play a role in the adhesive's workability. See adhesive manufacturer guidelines before using.

Bonding PVC to PVC:

- PVC Cement, such as Oatey PVC Cement, or other solvent-based adhesives work very well.
- Use one with a moderate or slow set up time. Plumbers PVC Cement generally will have a fast set up time and may bond too quickly for any detailed work.
- When bonding EX-Cel® PVC Trim material face to face, you may need a clamp or wood press to help hold the material together.

Below are examples of adhesives to use when bonding to different substrates.

- Adhering your EX-Cel® PVC Trim material to other substrates, besides itself, will require mechanical fasteners to be used as well as the adhesive or sealant.
- Always test the adhesive for compatibility before applying

When Bonding PVC to:	PVC	Wood	Concrete/Block	Metal
PVC Trimwelder	•			•
PVC Fill & Flex	•			
PVC White Hot	•			
Bond & Fill®	•			
IPS Weld on 705	•			
Liquid Nails Subfloor		•		
Liquid Nails Heavy Duty		•	•	
NPC Solar Seal 900		•	•	•

PAINTING

Although it is not necessary to paint your EX-Cel® PVC Trim, it will accept and hold paint very well.

- Use a high-grade exterior 100% acrylic latex paint with urethane additive.
- The LRV (Light Reflective Value) needs to be 55 units or greater.
- Painting PVC dark colors (under LRV of 55 units) could result in poor results of your PVC material and will void your warranty.
- Although darker colors have been proven to work, Jain will not be liable, and the warranty will now rest with the paint manufacturer.



- If your color is below the LRV of 55 units, use paints specifically for PVC products, that are vinyl safe and contain heat reflective pigments. Some examples may be Sherwin Williams VinylSafe™, PPG Permanizer® or PPG Acri-Shield Max® Or AquasurTech OEM. Consult with the paint manufacturers for further information.

Helpful Hints for Painting your EX-Cel® PVC Trim Material:

- Be sure that your surface is properly cleaned and lightly sanded
- Remove any mildew or mold with a mixture of water and bleach.
- Some paints can take upwards of 30 days to fully cure. This can depend on many variables; temperature and humidity being the major factors. Follow paint manufacturers' instructions to ensure proper installation and preparation.

FINISHING

Other options are:

- Starborn Stainless Steel Headcoate Screws. You can get a colored screw head to match the trim.
- To fill a nail hole, you can use Extreme Adhesives Fill & Flex or DAP® Crack Shot Sanding and Painting may be required.
- Extreme Adhesives Nail Eraser. It is specifically formulated just for PVC Trim.
PVC Nail Erasers let you fill in nail holes up to 1/8". Use only on PVC Trim that will not be painted.

CLEANING

- To clean your EX-Cel® PVC Trim, use a mild solution of soap and water
- When using a power washer, always use the lower pressure setting.
- EX-Cel® PVC Trim will not support mold or mildew growth, but it is possible that it will be on the surface. To remove mold or mildew, use a mild mold/mildew remover.
- Other cleaning products such as OxiClean, Clorox® with bleach, Mr.Clean® Magic Eraser, 10:1 bleach mixture, Wet&Forget® and Simple Green, are acceptable with our products. Make sure to test any cleaners in a small hidden area first before using.

HEAT FORMING (HEAT BLANKET)

EX-Cel® trimboards can be easily heat formed or bent into a variety of shapes without negatively affecting the surface finish.

Make sure that you are heating the product up slowly and uniformly to ensure best results. Heat Blankets or Heat Tape are recommended for this application.

PVC will start to deform at 160°F, but your desired temperature Should be between 160°F and 300°F. 280°F is an optimal temperature.

Always wear heat protective gloves, to prevent burning your hands and it will help to keep the product clean.

Heat Blanket recommendations:


1. Have the mold you are forming the product ready to go.
2. After you have heated the blanket up, place the trim in between the blankets and allow time for the product to heat and soften.
3. Continue to check the temperature of the product. Once at the desired temperature, take the material off of the blanket. (It will feel flimsy, almost like jello when removed.) Quickly place in the mold.
4. If necessary, clamp the ends of the trim to keep in place.
5. Work the product into the mold. While at the same time, with a small block or piece of trim, smooth and flatten the surface.
6. Once the material is cooled, you can remove it from the mold and install it where needed.

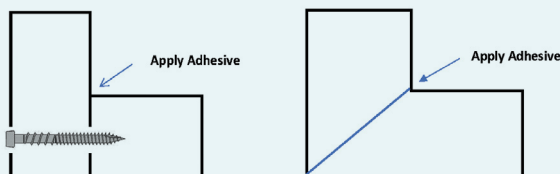
*** For more details, check our [Installation Videos](#) on Heat Forming**

FABRICATED CORNERS

EX-Cel® Corners have prefabricated one piece corners available for purchase. Contact your local supplier to find out the size options.

To Fabricate your own corners in field, you can either miter or butt two trimboards together and seal the joint with adhesive.

 PVC adhesives can usually have a short curing time, so when gluing the trim, do not apply the adhesive until you are ready to bring the two pieces together.



Mitered Corners

1. Assemble your pieces before you start installing
2. Cut your miter angles
3. Apply adhesive to the length of the Mitered pieces, and adhere the two trim pieces together
4. Allow to cure and then install with mechanical fasteners as you would for normal trim. (See Fastening Section for instructions)

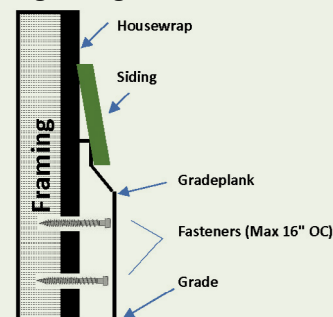
Butted Corners

1. Assemble the two trim pieces you want together before installing
2. Apply adhesive to the length of your trimboards that will be adhered together
3. Use a mechanical fastener through the butt along the whole length of the boards, every 16" on center
4. Allow to cure and then install with mechanical fasteners as you would for normal trim (See Fastening Section for instructions)


GRADE PLANK

Grade Planks, also referred to as Water Tables or Skirtboards, are to allow water to run down and away from the house, preventing the siding from absorbing any moisture. Since PVC does not absorb moisture, it can be installed at zero clearance.

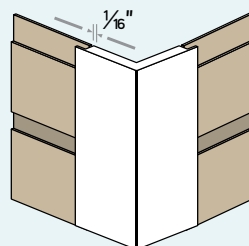
To begin, be sure all walls are true and covered with house wrap. If there is no house wrap, then flashing is required. Flash around the base of the wall 10-1/2" up from the sill plate using roofing felt, rubber, or trim coil (aluminum/ vinyl). Use the same guidelines as EX-Cel® trim stated in our instructions. Install siding per manufacturer's guidelines.



CHANNELED TRIM & CORNERS

 When installing a Channeled EX-Cel® trim or Corner, such as J-Pocket or Universal trim, DO NOT nail through the channel edge.

- Install your siding in accordance with the manufacturer's guidelines.
- If installing the siding first, you may want to chalk a line to determine where your trim will go after.
- Follow the same trim guidelines as you would.



SOFFIT INSTALLATION

For spans of 16" to 24", use 3/4" inch actual (1" nominal) thick products. You should never span EX-Cel® PVC Trim material more than 24".

If you are using the Beadboard material for soffit, install beadboard perpendicular to the structure and fasten every 12" on-center or less.

CEILING INSTALLATION

Before installing PVC Beadboard as a ceiling application, be sure that the ceiling joists are true and level. The space above the ceiling should be properly ventilated to prevent any heat buildup.

We recommend placing a 1/2" sheet of OSB or plywood to the underside of the ceiling joists. In addition to the mechanical fasteners, you should use a construction grade adhesive.

Your Beadboard should be installed perpendicular to the joists. Fasten every 12" on center or less. Beaded Sheets should be fastened 12" on center and should be fastened 16" on center along the width.

For spans of 16" to 24", use 3/4" inch actual (1" nominal) thick products. You should never span EX-Cel® PVC Trim material more than 24". You will want to create the shortest run of material if possible.

Recommended Fastening:

- You are able to use a pneumatic gun
- #7 Trim Screw, 16 gauge T-nails, minimum of 1-1/2" in length
- For 1/2" beadboard, use 15 gauge round head, minimum of 1-1/2" in length
- Nails should be 1/2" to 3/4" from edges of material.

Make sure to include a space for material to expand and contract (approx. 1/4" gap on each end of the board).

To ensure the look of the board is even,

1. Measure and calculate how many boards you will need.
2. You may need to trim the width of the first & last board (lengthwise).
3. When trimming down the width of the 1st board, do not trim the tongue side. Your cut side will be against the wall.
4. When trimming down the width of the last board, you will want to trim down the tongue side.
5. To finish your look, install mouldings around the perimeter to cover the gaps, for example Crown Moulding.

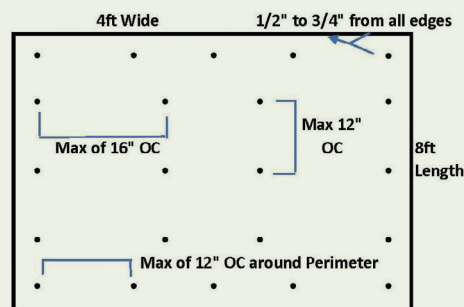
You are able to fasten in the tongue of the board. Angle your gun away and to one side of the tongue and position at the back edge of the tongue.

You should then be able to slide the grove side of the next board in and continue installing.

For runs longer than 16ft, additional face fastening and/or application of construction adhesive at the substrate or along framing members will help restrict movement.

For Runs longer than 18ft, an expansion joint is recommended, or you may apply a scarf joint. (See Scarf Joint and Expansion & Contraction sections)

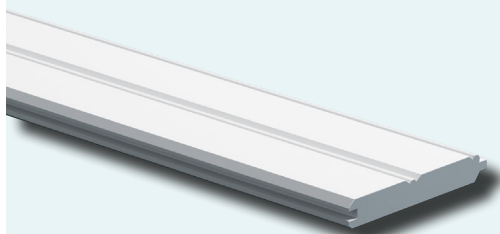
Example of Fastening Pattern for Beaded Sheets:



WAINSCOTING APPLICATION

Using EX-Cel® Beadboard or Beaded Sheet for wainscoting applications are great for high moisture areas (for example, outdoor showers or bathrooms) and it is easy to install.

1. Make sure that the ends of the boards have a 90 degree square cut.
2. Cut the material to your desired length.
3. Apply Adhesive to the back of the material and install on a solid surface.
4. You should start in the corner of the room. If using Beadboard versus Beaded Sheet, make sure the tongue section is facing away from the corner. Press into the wall and nail through the nailing fin.
5. You may need to cut the Groove side of the beadboard for the 1st board, to have a straight edge start.
6. If you are installing in a controlled environment, then staples are acceptable.
7. Once you reach the next corner, you may need to trim the tongue side in order for it to fit on the wall.
8. For corners, you can use quarter round or scotia or a moulding of your choice for inside corners or corner trim for outside corners.
9. Scarf Joints are another option for corners.
10. Lastly, finish off with Chair Rail type mouldings and wall base mouldings to add that extra curb appeal (an example could be shingle moulding).



COLUMNS

EX-Cel® offers Column Posts in 5" & 7" Column Wraps that are made for 4" & 6" Posts. They are premade in a 2 piece set, and matching Bases & Caps will be included.

The columns are easily installed and will be a great completion to add to your curb appeal.

1. Make sure that the structural post is straight, true and structural sound.
2. Start by putting your 3 sided Column Wrap onto your post.
3. You may have some extra room between your post and wrap, you can brad nail, nail or screw one side of the column to keep it in place.
4. You will want to have an adhesive that will allow for enough working time to allow you to work. An example would be Oatey PVC Cement or Weld-On 705.
5. Apply the adhesive on the Milled Edges of the 1 piece that is separate from the 3 sided Wrap.
6. Now snap that 1 piece into place with the 3 sided Wrap piece.
7. Now you can apply the 5" Cap & 7" Base onto your Column Wrap. Apply the same as you did the Column.

WINDOW TRIM

Jain offers some Window Trims to make your trim package complete.

To start, be sure the window area is properly prepared to accept it. The window should be installed square, true and plumb. It should be weather proofed as per manufacturer's specifications. Flash window opening in accordance with manufacturer.

Install per our Standard fastening instructions listed above. You will use the same fasteners and tools as Standard & Channelled Trim. (Do not nail into any channel)

