

The following installation instructions are very important. Read them carefully, and be sure you understand them completely before you begin to install Wallprotex rigid vinyl wall sheets or rub rails. Failure to do so could result in the voiding of any product warranties.

#### Tools that may be required:

- Paint/Primer (if needed)
- Painters Tape, Chalk Line or Laser Level
- Level
- Utility Knife
- Straight Edge
- 1/8" V-notch with 1/2" spacing trowel
- Recommended Adhesive - (See Pages 4 & 5)
- Laminate roller
- Smooth foam paint roller (for contact cement)
- Clean cloths and soapy water

#### Inspection, Storage, and Handling

Immediately upon receipt of the material, remove all banding, open the packaging as needed to inspect the materials for any damage that may have been caused in transit or any manufacturing defects. All damage and defects must be reported to Wallprotex within 10 days of the receipt of material. Store the sheet materials in a clean, dry, interior, climate controlled area with a temperature of 60° - 85°F. Keep out of direct sunlight, and in a secure protected area. Make sure that the sheet material is stored in a horizontal position, properly supported, and lays completely flat.

#### Installation Preparation

24 hours prior to installation, read all manufacturer instructions concerning the chosen recommended adhesive. Place the sheet material in a flat horizontal position in the installation area. The area MUST be environmentally controlled with a temperature of 65° - 75°F and a humidity level no greater than 80% in the installation area 24 hours prior to installation, during the installation, and 48 hours after the installation. Failure to do so will cause the sheet material to bubble and improperly adhere to the wall surface.

To ensure proper bonding make sure that the wall is dry and free from dirt, dust, grease, and loose paint. Clean the wall surface as needed, follow preparation instructions listed for wall conditions as required.

#### New drywall or plaster:

- Smooth/sand any rough areas on the application area
- Remove dust and dirt
- Seal the walls with a primer, a paint, or both
- DO NOT use a paint/primer that contains Polyvinyl Acetate (PVAc)

#### Painted Drywall or Plaster

- Test the wall for adhesion by applying 12" x 12" pieces of sheet in various inconspicuous areas.
- Allow the test sheet to remain adhered for 24 hours, then remove the test sheet.
- If the paint has softened strip, the paint from the walls where the sheet is to be applied and reseal with a recommended paint/primer.

#### Concrete or Masonry

- Smooth the surface and fill area's with an appropriate filler.
- Seal the concrete with a recommended paint/primer and allow to dry per the manufactures instructions.
- DO NOT use paint/primer that contains Polyvinyl Acetate (PVAc)

**Note:** Unfilled grout lines in masonry may telegraph/show through the sheet, especially with the thinner sheet thicknesses.

#### Non-porous Substrates

- Non-porous substrates include metal, high-pressure laminates, epoxy painted walls, ceramic tile, vinyl wall coverings, and rigid sheet.
- Use recommended adhesive to adhere to non-porous substrates.
- Adhering rigid vinyl sheet to vinyl wall coverings will increase the smoke generation and flame spread and negate the Class A fire rating.
- If applying to a non-porous substrate follow the non-porous installation instructions contained within.

**Note:** Wallprotex highly recommends that a test area be done for any substrate to insure the desired adhesion is achieved. All adhesive testing is solely the responsibility of the contractor on site.

### **Cutting and Dry Fitting Sheets**

Using a chalk line, laser level, or painters tape, outline the area of wall to be covered with the sheet material. If the installation is a wainscoting, ensure that the sight line (top line) is level. If the installation is a full wall, ensure that the vertical edge of the sheet is plumb. When laying out the area allow for a 1/16" gap between sheet material joints, floors, corners, and door and window casings (this is to prevent any buckling or bubbling of the material due to expansion). Measure and mark the sheet material for height, width, outlets, switches, and other objects on the wall as required. Using a metal straight edge and a sharp utility knife cut the sheet as marked making multiple passes with the utility knife. Dry fit the sheet to the wall, holding it in place on the wall to ensure that the location and all cuts are correct. When installing multiple pieces of sheet dry fit all of the sheet required for that area. When handling the sheet material take care not to kink the material when handling. If a base cove is to be installed after the sheet material, place the sheet the proper distance from the finished floor so that there will only be a 1/4" overlap of the wall sheet by the top of the base cove. The base cove should never be applied directly over the sheet material.

**Note:** *DO NOT install the sheet material too close to heat sources such as; heat registers, radiators, or other equipment that may produce an excessive amount of heat, this may cause the sheet to de-laminate or bubble.*

### **Adhesive Application**

- Read and follow all manufacturer instruction for the chosen adhesive.
- Apply adhesive using a 1/2" spaced, 1/8" V-notched trowel.
- Apply the adhesive to the wall area only, do not apply to the backing of the sheet.
- Apply the adhesive to the entire marked area to be covered with the sheet material.
- Remove any excess adhesive before it cures.
- Take care to keep the work area and application tools clean.

### **Porous Substrate Adhesive Curing**

- Read all adhesive manufactures instructions concerning the curing time for the chosen recommended adhesive.
- The time it will take for the adhesive to cure is dependent on the temperature and humidity level.
- Allow the adhesive to become tacky and not transfer to your finger when touched, this will generally occur when the adhesive is 60-75% translucent.
- The use of fans in the installation area can help to reduce the cure time.

**Note:** *It is the responsibly of the installer to determine the cure time of the adhesive based on the job site conditions and type of adhesive used. Do a test installation if you are at all unsure on the cure time/process.*

### **Non-Porous Substrate Adhesive Curing**

- Read all adhesive manufactures instructions concerning the curing time of the chosen recommended adhesive.
- The cure time for Non-porous substrates is longer than Porous substrates (but no more than 3 hours).
- Adhesive should be allowed to cure until it is 90% translucent.
- Place the sheet perfectly because the adhesive will behave like a contact cement.
- The use of fans in the installation area can help to reduce the cure time.

**Note:** *It is the responsibly of the installer to determine the cure time of the adhesive based on the job site conditions and type of adhesive used. Do a test installation if you are at all unsure on the cure time/process.*

### **Sheet and Trim Application**

**Note:** *When applying the sheet material to the adhesive it is best to have 2 people to do so, this will make the job easier and will prevent the chances of mishandling the material causing a kink.*

Once the adhesive has cured select the first piece of sheet to be installed, place it along the plumb line for a vertical installation or along the level line for a horizontal (wainscot) installation. Once the sheet is properly aligned lightly rub over the surface of the sheet so that the entire sheet is making contact with the adhesive. Do not press firmly to the wall at this point, check to make sure that the sheet is still properly aligned, the sheet can be repositioned if necessary to assure proper alignment. Once the first sheet is applied to the wall select any required trim pieces (See Figure 1, pg 3). Using a sharp utility knife cut the trim pieces to the proper size. When using an edge trim across the top of a horizontal (wainscot) run, notch the back of the edge trim at the intersection location with any vertical (joint) trim. Install trim by sliding it behind the sheet.

Do not install the trim tight against the edge of the sheet, allow some space (1/16" minimum) for expansion of the sheet. Starting at the center of the sheet, use a roller to apply pressure to the entire sheet, work your way from the center to the edges. This will make the entire surface of the sheet bond to the wall and will allow you to work out and air bubbles. Use the roller to roll the trim once the sheet has been properly rolled and is free of any air bubbles.

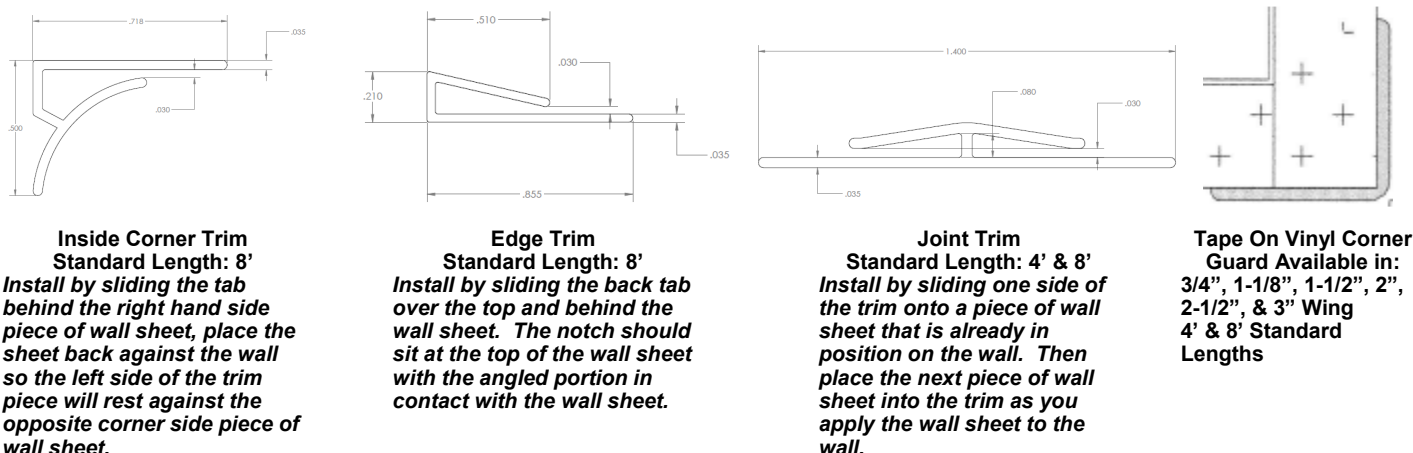


Figure 1

### Clean Up and Inspection

Upon completion of the installation, remove all painters tape and other protective or marking materials. Inspect all joints, cut outs, and seams for excess adhesive, remove any excess adhesive quickly. If the adhesive has cured to the point where soap and water will not remove it use mineral spirits and rub gently with a soft cloth. Once all excess adhesive has been removed clean the entire sheet surface with a general all purpose cleaner such as fantastic®, or with soap and water, to remove any remaining adhesive residue. Rinse the sheet with a water dampened soft cloth, then dry with a soft dry cloth. Once this is done cover plates, switch plates, and other wall mounted items can be installed.

### Maintenance

For general cleaning use a clean, lint free soft cloth in combination with any of the following types of all purpose liquid cleaning products:

- 409®
- Fantastik®
- Mr. Clean®
- Antibacterial soap and warm water

For tough stains such as markers, pencils, and rubber heel marks the following products should be used for cleaning:

- Clorox® Clean-up with Bleach
- Zep® Heavy Duty Citrus Degreaser
- Antibacterial fantastik® All Purpose Cleaner Heavy Duty

Spray the surface of the sheet with the chosen product and then wipe with a soft, lint-free, damp cloth.

**DO NOT** use scouring pads, Scotch-Brite® pads, or steel wool to clean the sheet material, this will result in the scuffing of the sheet material.

**DO NOT** use cleaners that contain Methyl Ethyl Ketone or similar solvents, or that contain abrasive compounds to clean the sheet material.

**Note:** Wallprotex in no way endorses any of the specific name brands listed within these instructions.

### After Installation

Once the installation and clean up are finished the area containing the sheet material must maintain environmentally controlled conditions. Failure to do so could result in de-lamination of the material due to large temperature changes.

## **ADHESIVES**

Wallprotex recommends the use of the following adhesives for use with Rigid Vinyl Sheet Materials:

Formulated Solutions, LLC. XT-2000+ Adhesive Freeze Thaw Stable and XT-2000 Primer

Use of any other type or brand of adhesive will negate the wall sheet Class A Fire Rating.

***Read any and all manufactures product instructions and warnings before use!***

### **General Application Directions**

Porous substrates such as drywall, joint compounds, and concrete block must be sealed with a primer or paint that does not contain any PVAc (Polyvinyl Acetate), many low cost paints, sealers, and joint compounds do contain PVAc, the PVAc may react with the adhesive causing bonding failure. Priming and sealing of drywall surfaces will prevent the wallboard from tearing during the installation, and the softening or interaction of the joint compound with the adhesive which would weaken the bond.

Allow the adhesive, and wall covering, to regulate to a temperature between 65°F and 75°F, with a humidity no greater than 80% for 24 hours prior to the installation. These conditions MUST be kept through out the installation process and for a minimum of 48 hours after the installation has been completed. Significant temperature changes will cause the wall covering to expand or contract causing adhesive failure. Do not install wall covering with the adhesive over cold exterior walls. Failure to comply with these requirements will result in significant installation problems.

Do not thin out the adhesive with water or solvents. Spread the adhesive evenly with a notched trowel, covering 100% of the surface. Do not apply the adhesive with a brush or a roller, or to the back of the wall covering, apply only to the wall surface. Clean the trowel frequently during the installation to keep the trowel grooves clean.

After spreading the adhesive it must cure for 20-30 minutes and be firm to the touch before setting wall panels. The wall covering should be set into the adhesive with 1-1/2 hours after spreading. This will ensure a solid bond. If the adhesive dries too long, its bond strength will weaken.

Rigid vinyl wall covering materials expand with increases in temperature, approximately 1/64" per foot per 30°F increase for 0.040 thickness materials. Due to this, do not force wall covering up against door jambs, ceilings, baseboards, or window jambs. Leave a 1/16" gap all around. Do not force butt joints together, the wall covering tends to push away from points of compression and buckle away from the adhesive during the critical curing period. Remove all baseboards prior to installation if at all possible. *Note: Larger clearance (preferably 1/8") should be left on all edges of the wall covering when installing near heaters or underlying hot water pipes.*

Roll the wall covering with a laminate roller after installation, roll from the center of the material towards the edges, to remove any entrapped air and ensure complete adhesion. Apply extra pressure to the finished edges.

Remove all excess adhesive with soapy water. Do not allow to dry on tools or materials. Dry adhesive requires a solvent such as mineral spirits for clean up.

**Adhesive over Non-porous Substrates** (such as: painted metal, stainless steel, high pressure laminate, and other rigid plastic)

Adhesive drying time will vary with jobsite temperature and humidity conditions. Drying will take at least one hour, usually no longer than three hours.

The adhesive must be firm and not transfer to fingers when touched and will change from white to clear indicating the optimum time for installation. The edges of the installed wall covering will adhere before the center does.

Keep wall covering material flat and properly aligned as when using contact cement. DO NOT allow the wall covering to touch the adhesive unless it is perfectly aligned. Readjusting the sheet may be difficult or impossible.

### **Adhering Rigid Vinyl Wall Covering Over Ceramic Tile or Glazed Block**

.060 or thicker wall covering is effective in hiding uneven wall surfaces such as ceramic tile and glazed block. Thinner gauges may only be used if the wall surface is properly prepared to be smooth and flat.

Wall flatness is very important. Level the wall with a premium ceramic tile adhesive. Use a wide, flat-edged leveling trowel to fill grout line depressions. Leave the tile faces uncovered. Allow to dry for a minimum of 24 hours.

Wet Sand high points to smooth walls and keep dust to a minimum.

Sponge down the walls to remove dust and loose particles and allow walls to dry completely. Follow instructions above for Non-Porous substrates for adhesive application.

### **Preventing the Telegraphing of Trowel Grooves through Thin Gauge Wall Covering**

On smooth walls use a 1/16" square notched trowel.

On rough walls use a 1/8" V-notched trowel having flat areas between the grooves.

Apply wall covering when the high points of the adhesive have changed from white to clear but most of the groove is still white.

**Important:** Adhesive grooves must be flattened immediately by rolling the wall covering with a laminate roller.

### **Coverage/Trowel Spread Rates**

1/16" V-notched trowel, approximate coverage: 125 sq. ft. per gallon.

1/8" V-notched trowel, approximate coverage: 100 sq. ft. per gallon.

## **ADHESIVES**

### **Technical and Safety Information**

<b>XT-2000+ Adhesive Technical Information</b>	
<b>Characteristic</b>	<b>Description</b>
Base	Synthetic latex
Solvent	Water
Solids	62-63%
Application Temperature Limits	65°F to 75°F
Lifetime Jobsite Temperature Limits (after adhesive is cured)	35°F to 150°F
Flammability	Non-flammable
Consistency	Trowelable mastic
Application	Notched-trowel
Coverage	Approximately 100-125 sq. ft with V-notched trowel
Specific Gravity	~1.00
Smoke and Flame Contribution (ASTM E-84)	Class 1/A fire code compliant
<b>XT-2000 Primer Technical Information</b>	
<b>Characteristic</b>	<b>Description</b>
Base	Styrene Butadiene Resin (SBR)
Solvent	Water
Solids	20-23%
Application Temperature Limits	60°F to 90°F
Lifetime Jobsite Temperature Limits (after adhesive is cured)	35°F to 150°F
Flammability	Non-flammable
Consistency	White, milk-like
Application	Brush, roller, or spray
Coverage	Approximately 350-400 sq. ft./gallon depending on surface porosity
Specific Gravity	~1.03

### **Safety Data**

**Odor:** Minimal acrylic paint-like odor

**Precautions:** Synthetic latex can be irritating. Avoid contact with skin. In case of contact, wash thoroughly with soap and water. For eyes, get prompt medical attention. Provide adequate ventilation in the work area. Keep out of the reach of children.

### **Storage**

After each use store in original, tightly sealed container at room temperature. Protect from freezing, the product is freeze-thaw stable but freezing should be avoided whenever possible. Excessive cycling or prolonged frozen states can damage the adhesive. Shelf life is one year from date of manufacture.