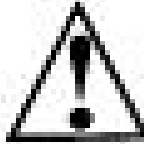




# **LONSEAL**

## **INTERIOR INSTALLATION MANUAL**

## WARNING



YOUR SAFETY AND THAT OF OTHERS AT THE JOB SITE IS MOST IMPORTANT.  
READ AND STRICTLY ADHERE TO ALL HEALTH AND SAFETY WARNINGS ON  
MATERIAL SAFETY DATA SHEETS AND LABELS.

**Do not sand, dry scrape, beadblast, or mechanically pulverize existing resilient flooring, backing, solvent-based cutback adhesive, or lining felt.** These products may contain asbestos fibers not easily identified. Do not use power devices that might create asbestos dust. Do not allow unprotected personnel in the vicinity.

The inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Smoking greatly increases the risk of serious bodily harm when airborne asbestos particles are breathed.

When removal is undertaken, ensure that all applicable local, state, and federal regulations are observed and that those who undertake removal are familiar with the Resilient Floor Covering Institute Work Practices and are properly trained and licensed if required. For copies of these Work Practices currently in effect, please write to:

Resilient Floor Covering Institute  
966 Hungerford Drive  
Suite 12-B  
Rockville, MD 20850  
(301) 340-8580

### WARNING REGARDING COMPLETE ADHESIVE REMOVAL

Frequently, when removing vinyl composition tile, solvent-based asphaltic adhesives are encountered that are not readily identifiable. If you cannot identify them, assume that they contain asbestos fiber. Do not use power devices that create asbestos dust in removing these adhesives. The inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Smoking greatly increases the risk of serious bodily harm. If you are unsure or unable to determine whether asbestos is present where you will be working, do not proceed without seeking qualified help.

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## Introduction

The following information provides basic installation guidelines. Installers are advised to obtain the Lonseal Technical Manual for detailed material handling and installation instructions. Deviation from Lonseal's installation requirements can void the warranty. For the best results use only Lonseal adhesives and sealing products.

**Seam Match:** Method of manufacture distorts texture so that a perfect match is not possible at the seam.

Use constitutes acceptance: The installer assumes responsibility for the existing floor upon installation.

**NOTE:** Unless otherwise mentioned, all material is installed running the same direction and all cuts should be made and installed in consecutive order. Look for directional markings on the back of the vinyl. (This is a new policy so some material may not have directional marks printed on them yet.)

### Storage

1. Storage and installation temperatures range from 65°F-75°F (18°-23° C) and apply to vinyl, adhesives and all sundries.
2. Using the permanent HVAC, maintain subfloor, room and vinyl at the above-mentioned temperatures for a minimum of 48 hours prior to, during and post installation. Maintain minimum room temperatures at 55° (13° C) thereafter.
  - Store vinyl rolls standing on end and sundries in a dry location.

### Substrate Conditions and Preparation

Subfloor must be sound, smooth, clean, dry and free from grease, dirt, dust, wax, paint, efflorescence or concrete curing compounds.

Level any high spots and fill in all cracks, holes and minor depressions with quality cement based latex underlayment patching compound.

1. **Concrete:** Prior to installation of Lonseal sheeting, ensure that the slab is in conformance with ASTM F 710-98. Vapor emissions shall not exceed 3.0 lb./1000 sq.ft./24 hours as measured by calcium chloride testing. Alkalinity range: 5-9. The slab must be made level to within 3/16" in a ten-foot span.
2. **Underlayment Grade Plywood:** Must bear the proper APA-The Engineered Wood Association, stamp or be Weyerhaeuser MultiPLY with a minimum thickness of ¼" (6 mm).
  - Use nails or staples to fasten underlayment panels according to the manufacturers instructions. Do not use any form of adhesive under panels.
3. **Gypsum Based or Lightweight Concrete:** Present certain challenges to achieve a successful installation.
  - Surface dusting affects adhesion to the substrate.
  - Lack of structural integrity can result in substrate cracking and indentation.

Avoid problems by replacing the gypsum with a cementitious self leveling underlayment or surfacing lightweight concrete with the same material following manufacturers recommendations.<sup>1</sup> Do a bond test to determine adhesion and substrate suitability. Responsibility for the installation rests with the installer.

4. Metal and non-porous substrates: Must be free of surface contaminants and lightly abraded.
5. Fill all voids and cracks with approved cement based patching compound. (See below)

**NOTE:** Expansion joints permit slab movement and eventually telegraph. Stop the vinyl short of joints and provide expansion joint covers.

### Approved Type Underlayment Patch

Use only latex (polymer) modified, hydraulic cement based patching compound (portland cement based) with minimum cured compression strength of 3500 psi under Lonseal sheeting.

Do not use gypsum-based products to smooth or level any surface intended for use with Lonseal sheeting or adhesives.

### Self-Leveling

Self-leveling type underlayment provides a flat, smooth surface and can be applied over virtually any dry, clean, solid substrate (wood, concrete, ceramic, terrazzo and metal) and usually at any grade level.

- Most self-leveling products require the application of a primer.
- Most will cover and adhere to existing adhesive residue.

All self-leveling underlayment used under Lonseal sheeting must be portland cement based and cure to 4100 lb. psi or greater.

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<sup>1</sup> Ardex specifies that the concrete density must exceed 100 pounds per cubic foot or have a compressive strength greater than 3000 psi.

## Adhesives

### ***Adhesive 300 Two Component Epoxy***

#### **Application**

**NOTE:** Adhesive displacement causes visible surface irregularities and “bubbles” or air pockets. Avoid indentation by using kneeling boards or working away from freshly spread adhesive.

Prepare substrate per instructions on previous page. Follow label directions regarding application and cleanup.

- Thoroughly mix Part “A” and Part “B” separately and together, making sure all contents of one can are removed and mixed completely with contents of the other.
- Spread with appropriate trowel<sup>2</sup>. Leave open for a short time to release vapors but do not let adhesive form a skin. Install sheeting into wet adhesive and check for proper transfer of adhesive.
- Immediately roll the material in both directions using a 100 lb. three-section roller. Repeat rolling after one hour. No foot traffic for a period of 24 hours. Do not set heavy furnishings on the floor for 48 hours or allow rolling traffic for 72 hours.

**NOTE:** To ensure a proper bond it may be necessary to apply weights until the adhesive sets (12 hours).

#### **Limits**

Protect from freezing. Adhesive is freeze/thaw stable to 0° F (-18° C). Avoid prolonged exposure to low temperatures and multiple freeze/thaw cycles.

### ***Adhesive 400 Contact Adhesive***

#### **Application**

Apply per label instructions. Uniformly coat both surfaces after they are thoroughly cleaned and free of oil, dirt or grease. Allow adhesive to become tacky to the touch, then join substrates and allow drying.

Depending on surface porosity and method of application, expect approximately 150-200 square feet per gallon.

**EXTREMELY FLAMMABLE!** Keep away from heat, sparks and from open flame. Vapors may ignite explosively. Provide fresh air cross ventilation to prevent build-up of vapors. **Infotrac Poison Control Hotline 800 535-5053**

### ***Adhesive 555***

*POROUS Surfaces Only*

#### **Application**

**NOTE:** Adhesive displacement causes visible surface irregularities and “bubbles” or air pockets. Avoid indentation by using kneeling boards or working away from freshly spread adhesive.

Follow label directions regarding application and cleanup. Install the floor covering into only wet adhesive. Any adhesive that forms a skin must be scraped up and replaced with fresh adhesive. Variable open time at 70°F (21°C) up to 40 minutes depending on substrate porosity and atmospheric conditions. Occasionally, lift material and inspect for full transfer of adhesive backing.

Allow no foot traffic for a period of 24 hours. Do not set heavy furnishings on the floor for 48 hours or allow rolling traffic for 72 hours.

**NOTE:** Use Lonseal Double Face tape at all seams.

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<sup>2</sup> Use of a smaller notch trowel can lessen indentation issues on very smooth surfaces. Always check to insure complete adhesive transfer between the sheeting and substrate.

### **Adhesive 880**

*NON-POROUS Surfaces*

#### **Application**

Follow label directions regarding application and cleanup.

Use Lonseal double-face tape and 300 Epoxy in a 6" (16 cm) band at all seams unless otherwise indicated.

Number 880 permits either wet or dry installation depending on the type of substrate and installation requirements. It may be necessary to go into the adhesive while it is still a little wet to allow slippage because as it dries it develops aggressive grab and the vinyl can not be repositioned easily after placement.

**NOTE:** Reduce trowel notch size if the fresh adhesive telegraphs **ANY** indentations made from the surface such as those made by an adhesive container or shoes or knees!

#### **Lonseal Double Face Tape**

Use under all seams (except where curves make it impossible to lay flat). Dimensions: 2" X 60' (51 mm X 18.25 m).  
Use under all seams whether chemical or heat welded.

All substrates must be dry and free of dust or contaminants such as paint, wax, grease etc.

If the substrate is too dusty, prime the area under the tape with diluted latex emulsion applied with a small paint roller.  
When the latex emulsion is completely dry, proceed to install the double-face tape.

Install within 65° -85° F (18°-29° C). Do not attempt to install to a wet surface.

Apply to prepared substrate and roll with seam roller to assure good contact.

Individual rolls. 2" X 60'

## **Substrates and Preparation**

### **Bond Tests**

Perform bond tests when a surface contaminant (parting compound or oil, wax or adhesive residues) may be present or when user requirements will subject the installation to heavy rolling loads. In various locations on the site, clean the subfloor and adhere 3' X 3' pieces of Lonfloor sheeting for a period of 72 hours. Strong resistance to removal indicates good adhesion.

Always perform bond tests on lightweight concrete.

### **Old Adhesive**

*Mechanical or Chemical Removal*

**CAUTION: READ WARNINGS REGARDING REMOVAL OF OLD CUTBACK ADHESIVES AS PUBLISHED BY THE RESILIENT FLOOR COVERINGS INSTITUTE (RFCI 301 340 -8580).**

Mechanically cleaning the slab shall leave not more than a stain of residue of all contaminants and adhesive residues.  
Apply an approved type cementitious underlayment thick enough to completely hide the adhesive residue from sight.

Failure to use chemical strippers as designed can result in eventual adhesive failure and release from the substrate.

### **Existing Floor Coverings**

Do not install Lonseal products over more than one layer of well-bonded resilient floorcovering. Repair or replace damaged or missing tiles and gapped seams with approved patch.

Existing floor requirements:

- Compatible with PVC, (not rubber etc.).
- Not cushioned in any way.
- In a climate controlled environment.
- Not exhibit any alkaline efflorescing nor be subject to substrate moisture or hydrostatic pressure.

**NOTE:** Many older floorcovering products are less sensitive to moisture emissions and failure to test for slab moisture using anhydrous calcium chloride could be a costly mistake.

### **Asphalt**

Do not install Lonseal resilient flooring on asphalt, any bituminous or asphaltic saturated material. Nor directly to cutback adhesive residue.

### **Terrazzo**

Determine whether the terrazzo is Epoxy Resin or Portland based. Assume that terrazzo floors have been sealed or otherwise coated. Perform bond tests per Lonseal instructions. Test requirements for moisture and alkalinity remain the same as with a new substrate. Mechanical or chemical stripping is acceptable only if the floor is thoroughly rinsed and allowed to dry completely. Afterwards, tests for alkalinity must not exceed 9%. Fill cracks with approved cementitious underlayment.

### **Raised Panel Systems**

Detailed instructions in the Lonseal Technical Manual.

### **Metal Subfloors**

Must be smooth, clean, dry and solid with no surface contaminant present. Abrade with fine or medium sandpaper to remove rust or oxidation. Surface temperature must be maintained at 65-85° F (18°-29° C) for 48 hours prior to, during and after installation. Fill indentations and joints with approved filler and smoothing material or use an approved type self-leveling product.

Use the correct Lonseal adhesive.

### **Radiant Heated Flooring Systems**

Test slab for moisture and alkalinity. The subfloor, flooring material and adhesive must be conditioned at room temperature minimum 65° -85° F (18°-29° C) for 48 hours before, during installation and 48 hours afterward. Adhesive requirement: Lonseal 555.

### Installation

#### Tools

Most cutting in can be done freehand. Always use a straightedge at seams.

1. Groove Cutter: Electric, Pull Type, Push Type
2. Seams: Heat Welder and 4 mm Nozzle
3. Quarter Moon knife (Spatula) and Trim Guide-Smooth Textures
4. Pastille Tool (use instead of Quarter Moon knife to shave heat welding rod from embossed textures)
5. Combination over and under Scriber that allows cutting in addition to underscribing

#### Seam Options

The ● indicates seaming methods that provide the best results.

| Product Name                     | Heat Weld | Chem. Weld | Trace Cut | Double Cut | Butt Factory | Underscribe | Description of Seam Methods  |
|----------------------------------|-----------|------------|-----------|------------|--------------|-------------|--|
| LONPLATE I                       |           | ●          | ●         |            | ●            |             | <u>Trace Cut:</u> Trim the overlapping sheet. Using the trimmed edge as a guide cut through the bottom piece with a notched blade.   |
| LONPLATE II                      |           | ●          | ●         |            | ●            |             |  |
| LONPOINT                         |           | ●          | ●         | ●          | ●            | ●           | <u>Double Cut:</u> Cut through both layers at once using a straight edge and a sharp utility knife.  |
| LONWOOD DAKOTA <sup>3</sup>      | ●         | ●          | ●         | ●          |              | ●           |  |
| LONFLOOR GALVANIZED <sup>4</sup> |           | ●          |           | ●          |              | ●           | <u>Butt Factory Edge:</u> Requires no trimming just butt the edges together. Advise checking for true-ness of the factory edge with a straight edge. Not all sheets are perfectly straight. Gaps can occur due to uneven subfloor. |
| LONFLOOR FLECKS                  | ●         | ●          |           | ●          |              | ●           |  |
| LONPEARL                         |           | ●          | ●         |            | ●            |             | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONCOIN I                        |           | ●          | ●         |            | ●            |             |  |
| LONCOIN II                       |           | ●          | ●         |            | ●            |             | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONCOIN II FLECKS                | ●         | ●          | ●         |            | ●            |             |  |
| LONMESA                          |           | ●          | ●         |            | ●            |             | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONSWIRL <sup>5</sup>            |           | ●          | ●         | ●          | ●            | ●           |  |
| LONFLOOR PLAIN                   | ●         | ●          | ●         | ●          | ●            | ●           | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONWAVE                          |           | ●          | ●         |            | ●            |             |  |
| LONCOURT I <sup>6</sup>          | ●         | ⊙          | ●         |            | ●            | ●           | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONCOURT II <sup>6</sup>         | ●         | ⊙          | ●         | ●          | ●            | ●           |  |
| LONWOOD PERFORMA <sup>6</sup>    | ●         | ⊙          | ●         |            | ●            | ●           | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONFOAM                          | ●         | ●          | ●         |            |              | ●           |  |
| LONSTAGE                         | ●         | ●          | ●         | ●          | ●            | ●           | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONPLATE PATINA                  |           | ●          | ●         |            | ●            | ●           |  |
| LONWOOD NATURAL                  | ●         | ●          | ●         | ●          |              | ●           | <u>Underscribe:</u> Trim the edge of the bottom sheet. Trim the overlapping sheet to within 3/4". Insert the underscribe tool and draw it along the bottom sheet. Cut at scribe line.  |
| LONDILE                          |           | ●          | ●         | ●          | ●            |             |  |

<sup>3</sup> DAKOTA: Trim the 1/2" selvage on both edges where printed pattern does not make a complete "board". Do not try to side match the pattern. Ignore linear repeat and fit net to room.

<sup>4</sup> Check for availability of coordinating welding thread.

<sup>5</sup> LONSWIRL: Reverse alternating sheets to avoid shading within the valley printed embossing. Overlap to match pattern.

<sup>6</sup> LONCOURT I & II and PERFORMA: **Seams must be heat-welded.** Allow material to acclimate while lying flat at working temperature for 8 hours.



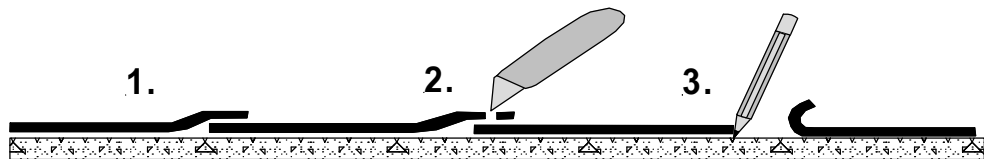
### Seam Method

**IMPORTANT:** Always allow material to acclimate for 6-8 hours while laying flat.

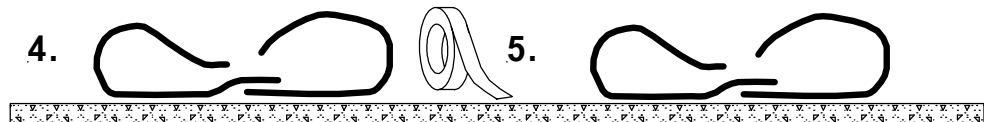
**NOTE:** Although a pattern match is not possible on long seams, they look best when the texture is uniform on both sides of the seam and does not “run out”.

| Seam Method            | Field Adhesive | Additional adhesives required to use at seam |                  |
|------------------------|----------------|--|------------------|
| Heat Weld <sup>7</sup> | 555 EVA        | -  | Double-Face Tape |
| Chemical Weld          | 555 EVA        | -  | Double-Face Tape |
| Heat Weld              | 880 Latex      | -  | Double-Face Tape |
| Chemical Weld          | 880 Latex      | 300 Epoxy                                    | Double-Face Tape |

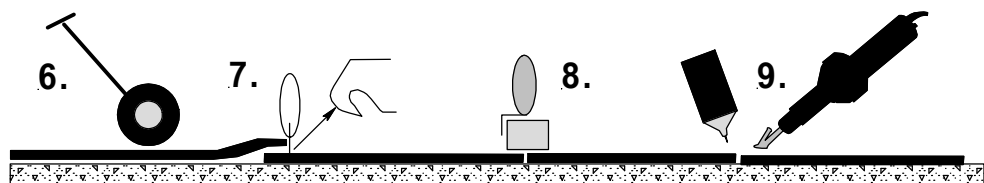
1. Lay out material overlapping at the seams.
2. Trim exposed edge of each sheet.
3. Mark the seam location on the floor with a pencil.



6. Tube sheets back and apply double face tape centered on the pencil line.
7. After spreading adhesive remove the paper from the tape before laying the sheets.



8. Roll up to but NOT over the seam.
9. Using upper material as a guide trace cut seam.
10. Roll seam with hand roller.
11. Apply Lonsealer or groove and heat weld.



<sup>7</sup> Heat Welding: Any Lonseal product may be heat welded but the seams will be hard to hide when heat welding deeply embossed textures.

## Making and Finishing Seams

### Heat Welding

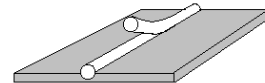
Lonseal heat welding thread comes on spools containing 500 lineal feet and is 4.0 mm. in diameter.

#### Seam Requirements

- A) Groove depth not greater than 3/32" (1.5 mm) or deeper than 1/2 the thickness of the welding thread.
- B) Leaving a small gap 1/64" (about the thickness of a credit card) helps the groove tool to follow.
- C) When heat welding through coving, always use rigid cove stick and be sure that the material is installed tight because an unsupported weld is weak.
- D) Keep the groove area clean and dry.
- E) Adjust the temperature of the gun so that a piece of welding thread will melt quickly but not burn when held in front of the nozzle.
  - Practice grooving and welding on scrap material
- F) Insert the welding thread through the (now properly heated) nozzle.
- G) Keep the gun perpendicular to the floor, apply slight downward pressure and draw it along the seam at a smooth and constant speed.

#### To complete application at the rear wall:

- H) Stop welding, cut the thread and cut a groove into it. See illustration at right.
- I) Begin at the (rear) wall and weld through the grooved thread.
  - For self covered: Extend groove up the wall
- J) Allow at least 30 minutes for the welding thread to cool and shrink before trimming.
  - Trimming is done in two passes, once with a trim plate and a crescent (half moon) knife and the second time with the crescent (half moon) knife only
  - For self-covered: Trim thread with an Xacto knife.



**EMBOSSSED NOTE:** On the trim pass, substitute the usual spatula for the Pastille trim tool. This tool has blunt edges for gliding over the raised embossing and a sharpened notch for shaving the thread.

### Chemical Welding

Use Lonsealer to chemically weld seams on all indoor installations. The edges of the sheeting must touch throughout if they gap the seam will be weak. Use between 65° -85° F (18°-29° C). Keep seam area free of dust and debris. Coat the seam with a Q-tip seals coved seams.

- A) Be sure to insert the needle fully into the seam and draw it towards you in a smooth, even movement.
- B) Hold tube so that the offset needle is at the top and apply sealer leaving a small bead on the surface.

### Applying Adhesive

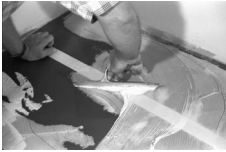


Figure 1 (555 Adhesive)

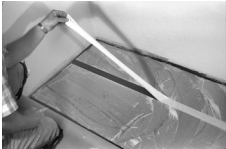


Figure 2 (Remove Paper)



Figure 3 (300 Adhesive)

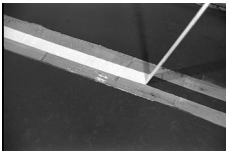


Figure 4



Figure 5 (300 and 880)



Figure 6



Figure 7

**Reminder:** Use Lonseal DFT double-face tape at the seams.

1. After positioning the sheets and making your relief cuts, tube (turn half the width of) the sheet nearest to the wall towards the center of the room. Use the correct notched trowel to spread the adhesive over the exposed substrate.
  - Gently place the sheeting into the adhesive being careful not to "flop" the material trapping air.
  - Roll the vinyl in two directions with a 100 lb. three-section roller and check to ensure complete transfer of adhesive to the back of the sheeting.
2. Trim about 1/2" (1 cm) of vinyl from one edge of the sheet (for Lonwood Dakota trim to nearest board pattern). Later, you will use this edge to guide the notch blade while trimming the seam.
3. Use a pencil to mark a line on the floor centered in the seam and place the 2" wide double-face tape. (If the subfloor is too dusty, prime the area under the tape with diluted latex emulsion applied with a small paint roller. When the latex emulsion is completely dry, proceed to install the double-face tape.) Leave the paper backing on the tape and roll it with a seam roller.
4. Spread adhesive over the entire area of the substrate and over the tape, and then remove the backing from the tape. (Figure 1 and 2)
  - Installations that call for **880** adhesive also require a 6" (15 cm) band of Lonseal **300** epoxy in the seam area. This is spread over the Lonseal Double Face tape. To get a clean spread, snap chalk lines 3" (7.5 cm) from the seam centerline. (Figure 3, 4 and 5)
  - Installations with **555** adhesive do not require epoxy at the seam area, just Lonseal Double Face tape. (Figure 1)
5. Gently lay the sheets into place with the untrimmed edge below the trimmed edge. Roll the sheets with the roller up to, but not over the seam area. (Figure 5 and 6)
6. Using the trimmed material as a guide cut through the untrimmed material (underneath) using a notched blade in a utility knife. Carefully remove the offcut material out of the seam as you go.
7. Roll the sheeting securely into the double-face tape with a hand roller. Repeat this process for all areas.
8. Clean the seams before applying Lonsealer or heat welding. Protect chemically welded seams from traffic and dirt for two hours minimum.

**555 ADHESIVE NOTE:** When cutting in around doorjambes, pipes, etc. trim the vinyl net to avoid pressure bulges. **Place weight on bulges until adhesive sets.**



Figure 8

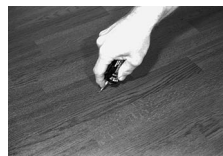


Figure 9

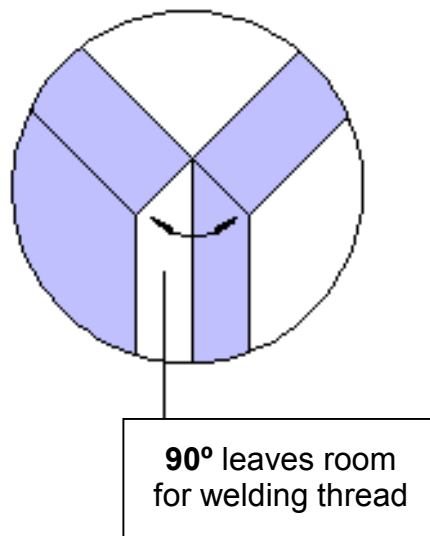
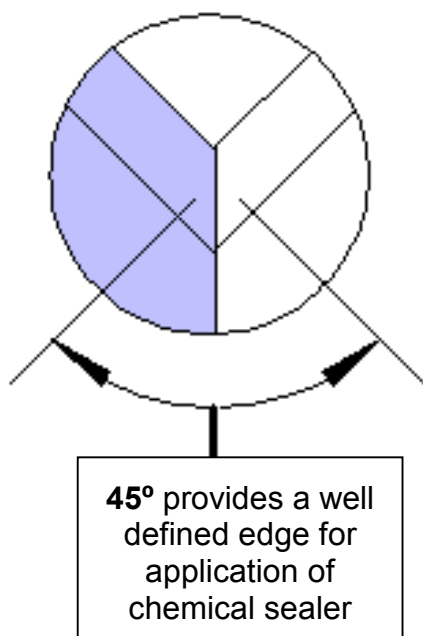


Figure 10

### Coving

- A) Supply firm cove stick and affix with mechanical fasteners or non-staining adhesive.
- B) Supply suitable cap strips of aluminum, plastic or stainless steel and firmly affix to the wall with mechanical fasteners or with non-staining adhesive.
- C) Apply Lonseal adhesive to the wall following label directions as to application.
  - Installers using Lonseal 555 adhesive may prefer to adhere outside corners with non-staining contact adhesive such as Lonseal 400.
- D) Chemically welded outside corners must be trimmed from the back at a 45° angle to produce a smooth corner on the face. (See illustration lower left)
- E) Heat welded outside corners must be trimmed at a 90° angle to provide a groove for the welding thread. Trim the welding thread to provide a smooth finish on the face. (See illustration lower right)
- F) After application of outside corners, complete seam sealing operations through cove and up the wall whether heat or chemical welding.

Oblique view of outside corner cutting methods for chemical and heat welds.



## Stair Installation

### Method One

### With Stair Nose Edging

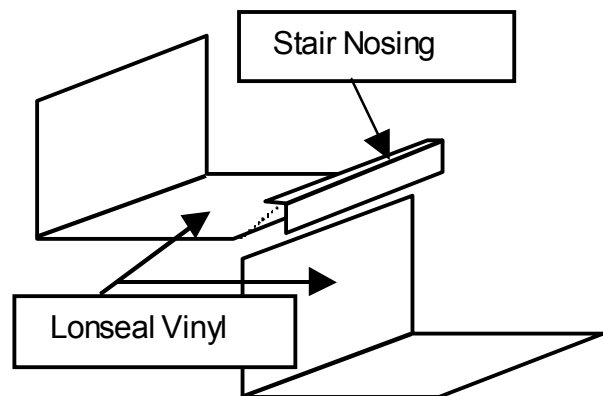
1. Beginning with the tread, install one step and riser at a time.
2. For a snug fit where the material is to flash up the riser, groove the material from the back and crease it over a straightedge.
3. Install stair nose edging securely covering the tread from side to side. Use suitable adhesive or fasteners.
4. Provide a suitable finishing trim for the edge of open stairways.

**Adhesive:** Apply adhesive 880 to treads risers and back of vinyl. (See illustration on following page for adhesive placement and trowel specification.)

**OPTION:** Install 3/4" cove stick (available through floor installation product distributors) to create a smooth transition from tread to riser. Facilitates cleaning.

The Lonseal, Inc. warranty applies under the following conditions:

- Apply nose edging to minimize wear on the vinyl and reduce slip hazard.<sup>1</sup>
- The stairs shall be in sound condition and not in direct ground contact.
- Proper methods and materials must be used to repair and true the stair.
- Conventional tread and riser assemblies must have protective nosing installed.



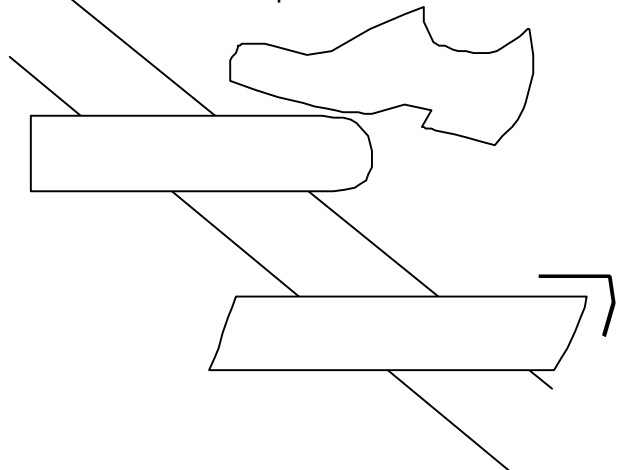
### Method Two

### Floating Stairs

1. Floating stairs must have a rounded nose or a nose edging must be provided for warranty approval. (See illustration below)
2. Groove the back of the vinyl to wrap at corners.
3. Use warm air to make the vinyl supple.

**Adhesive:** Lonseal 400 Nitrile based contact adhesive.

Floating steps must have a rounded nose or a nose trim must be provided.



### Method Three

### Without Stair Nose Edging

Install individual riser and tread only. Do not try to install a whole set at once.

- A) Measure riser and tread and add about 1/4" to allow for a small lap. This will permit the riser portion of the next piece to overlap resulting in a clean joint in the crotch of the step and additional protection from surface moisture. (See Figure 3)
- B) Measure and mark the points where the creases will be made. On the back of the vinyl, make a groove to allow the material to bend over the stair nose. Also, groove the back at the point where the vinyl will lap up the riser about 1/4". (See illustration below)
  - If the walls aren't straight, allow extra on the width to scribe. Use warm air to make material supple when wrapping over the stair nose.

**Adhesive:** Lonseal 880 on the tread and the riser.

**NOTE:** For fast grab, leave adhesive 880 open until it turns clear. Use care when placing the material, as there is almost instant grab.

- C) Keep the pattern centered by marking the center on the riser tread and material.
- D) Provide a suitable finishing trim for the edge of open stairways.

