

## **INTERIOR PRODUCTS:**

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## **INSTALLER'S REFERENCE GUIDE**

For complete installation guidelines please refer to *Lonseal's Technical Manual for Interior Flooring Products*

## About this Manual

This manual provides **basic installation guidelines for Lonseal Interior Flooring**. For complete details, please refer to Lonseal's *Technical Manual for Interior Flooring Products*. (Available online at [www.lonseal.com](http://www.lonseal.com))

For sports, or exterior applications please refer to the following Lonseal publications located online ([www.lonseal.com/technical.html](http://www.lonseal.com/technical.html)):

- Sport Flooring: *Technical Manual for Sport Flooring*
- Exterior: *Technical Manual for Exterior Products*

## 1. Product Information

Lonseal manufactures and distributes sheet vinyl flooring. Several products in our collection have a factory applied urethane surface (i.e. TOPSEAL). Use special care not to scratch the surface when installing. As required by the warranty all Lonseal sheet vinyl flooring products must be properly stored, acclimated, adhered, installed, and maintained.

### NOTE: Observe installation temperatures

- Vinyl expands when hot and contracts when cold. Installing vinyl, when hot, places stress on the seams when the vinyl cools down it may result in seams gapping.
  - **Standard roll** sizes are 6' wide by 60' long

### Cutting and Fitting

Lonseal sheet vinyl flooring is quite supple and easy to cut. However, patterns may be needed on complex installations. Never use a pen or permanent marker to mark on the sheet vinyl. Use only pencil to mark the vinyl or substrate.

## 2. Site Conditions

Site conditions shall conform to the Lonseal *Technical Manual for Interior Flooring Products*. Only install when permanent HVAC is operating and the building is completely fitted with operating windows and exterior doors. Ambient and substrate temperature range should be 65° -85° F.

### **Every slab must be tested for moisture**

Prior to any installation of Lonseal sheeting over concrete regardless of age or elevation or floor location, testing for moisture vapor drive shall conform to ASTM F1869 (Calcium chloride), with moisture emission not exceeding 5 lbs and ASTM F2170 (Relative Humidity), with relative humidity not exceeding 75%. Substrate must also be tested for alkalinity with acceptable pH of 9.

## 3. Substrates

Plywood and composite substrates must be properly acclimated, solid, securely nailed, clean and firm before floor prep begins.

- Luan, OSB and some particle board underlayments are not acceptable substrates.
- Self-leveling underlayment makes timely and cost effective alternatives to hand troweling. Use primer as directed by the manufacturer.

Prior to installing Lonseal sheet vinyl flooring, concrete must be clean, dry, and free of surface contaminants and bond-breakers (i.e. concrete sealers, curing compounds). Ensure proper removal before proceeding with final substrate preparation.

- Use a cementitious patching compound. Mix the compound per manufacturer's specifications and do not over-water the mix or force air directly on the patching area to speed drying.

## 4. Adhesives and Sundries

Use only Lonseal adhesives which are manufactured to the highest standards. Find detailed application guidelines on the bucket labels.

**Note:** Do not use more adhesive than recommended.

### **Double Face Tape (DFT)**

Must be used when chemically sealing the seams or when heat welding the same day. Use under straight seams only. Do not use for repairs, or under curved seams.

### **#755 Premium Bond sheet vinyl adhesive:**

#755 goes on white and turns clear. It is trowel applied for floor applications over all acceptably prepared substrates (i.e. concrete, plywood)

**Note:** For coving, stair and wainscoting applications, #755 may be roller or brush applied to both vinyl and substrate and allowed to go clear, at which point it acts like a contact adhesive.

- The fifty-fifty rule: Place the vinyl onto the adhesive when approximately **50%** of the color remains (or it is **50%** clear). When the vinyl is laid onto the adhesive at this point, there is good green grab and good adhesive transfer to the vinyl.
- Because all substrates require more or less adhesive, the installer ultimately determines which trowel notch size is best for the application.

**Note:** Always use the 1/16" square notch under *Loncourt I* and *Lonwood Performa*.

### **# 300 Epoxy adhesive:**

Trowel applied for floor applications over all acceptably prepared substrates (concrete, plywood, metal, fiberglass, etc.) also where there will be extremes of temperature and excessive topical moisture such as commercial kitchens/baths, showers etc.

- Typically, when the subfloor is smooth a U-notch trowel will satisfy bonding requirements; too much epoxy can create ridges and take awhile to off-gas and may cause bubbles.
- Cold temperatures slow curing, hot temperatures speed curing. Plan accordingly. Use for adhering Lonseal sheet vinyl flooring against non-PVC floor coverings absent a mechanically bonded transition strip. Apply a 3" band of #300 epoxy adhesive where Lonseal sheet vinyl flooring is finished against other non-PVC flooring like; Linoleum, ceramic tile, carpet, wood etc.

**Note:** #300 epoxy adhesive is required under all hospital beds.

### **# 400 Contact adhesive:**

Use straight from can and do not thin or dilute. #400 has a short open time.

- Apply an even coat to both surfaces with disposable brush or rollers that are solvent resistant
- Join and roll the surfaces as soon as a film forms that, when touched, will transfer to the fingers. Potential adhesion is quickly lost if the surfaces are not mated as described.

### **Lonsealer:**

A 4.7 ounce tube with a viscous property that is used to seal seams by chemically fusing the two sheets of vinyl.

## 5. Protection

Installer, please ensure that the vinyl is protected from damage by other trades; before, during and after installation. Also, be sure to protect installed floor from damage due to ongoing construction work by placing masonite or plywood over the surface of the vinyl.

## 6. Maintenance

Initial maintenance should begin 48 hours after installation. You will find comprehensive maintenance information in Lonseal's *Technical Manual for Interior Flooring Products*.

## 7. Installing

1. Dirt or adhesive residue must be removed prior to installation. Prepare and clean the substrate.
2. Lay out sheets:
  - **Do not reverse sheets.** All Lonseal sheet vinyl flooring products must be installed running in the same direction. Most of our products are equipped with direction indicators to ensure proper installation. Make and install all cuts in consecutive roll order.
  - Use a pencil to mark the vinyl with directional indicators. Never use a pen or permanent marker to mark on the sheet vinyl as this will cause permanent staining.
  - Attempt to keep seam(s) out of immediate sight depending on the room layout and from high traffic areas (i.e. pathways).
  - Minimize cross seam(s).
  - Because a certain degree of color variation can occur as a result of the manufacturing process, all rolls of Lonseal sheet vinyl flooring products must be installed sequentially by roll number and all cuts must be installed in the order of their removal from the roll.

**Note:** Know when and where to use DFT. See **Seams** for more details.

3. (If heat welding and not using DFT, skip to 4.) After laying out the vinyl, mark location of seams on substrate with a pencil and place DFT centered on the seam. Leave the liner on the DFT.
4. Glue the anchor (starting) sheet, usually near a long wall, roll with a 75 or 100 lb. resilient roller.
5. Proceed to open sheets along seams and apply adhesive. (It is OK to cover the liner of the DFT with adhesive, but remember to pull the liner off before placing the sheets into the adhesive.)
6. Do not leave seams unprotected. Apply Lonsealer or put *masking* tape over seams to be heat welded before leaving the job for the day.

**Note:** Always roll the floor with a 75-100 lb. 3-section roller upon the vinyl during the final steps of installation.

## 8. Finishing Seams

Cut seams after the vinyl is adhered in place. Do not pre-cut and butt seams. Only butt factory edges when heat welding. Seams of all Lonseal sheet vinyl flooring products must be heat or chemically welded. Lonseal double face tape (DFT) allows same-day heat welding and protects the seam from adhesive contamination.

- Smooth products are typically double-cut or are usually under scribed on curves
- Heavily embossed patterns can be double-cut
- Trim excess pattern (about 1/2"-5/8") from sheet edge on wood patterns like Lonwood Dakota, etc.
- Embossed patterns may not side-match on long seams

**NOTE: Urethane Surface (i.e. TOPSEAL)** seams may be fused chemically with Lonsealer, or heat welded (using the Lonseal urethane nozzle #65).

## Heat Welding Seams

DFT is optional, under seams that are to be heat welded 24 hours after installation (to allow adhesive to cure). If the seam must be heat welded immediately, use DFT under the seams.

**Note:** Glazing the thread prevents it from getting dirty and is required on urethane surfaced products (i.e. TOPSEAL). The surface of sheet vinyl may develop a shiny surface along the seam. Certain types of nozzles can help to reduce or eliminate glazing. The Lonseal urethane nozzle #65 greatly reduces the shiny effect.

- Heat welded seams must be grooved and fused with Lonseal's 4 mm welding thread. Seams must be cool before trimming the thread. Make two trim passes: one pass with the trim plate and knife, and the final pass using the knife only. Be careful to avoid scratching vinyl surface when trimming thread. Keep trim knife sharp and trim plate clean and free of burrs.
- Glaze the surface of the welding thread after skiving. With the gun set to 4 or less, aim it just above the trimmed thread and move slowly enough to melt the top of the thread, but fast enough not to blister the surface. **Keep the urethane nozzle on the gun when glazing urethane surfaced products (i.e. TOPSEAL).**
- Seams should be heat welded for all hospitals, commercial bathrooms, shower rooms, wet areas, sport installations and any installation that has sanitation requirements.

## Chemical Welding: Typical and Low Visibility

Observe cautions and instructions contained in the Lonsealer box. Do not simply coat the seam, but fully insert the needle into the seam. On the seam a 1/4" trace line of Lonsealer will remain and this is typical.

The "Low Visibility" method uses masking tape to catch the residue of Lonsealer so none remains visible along the seam.

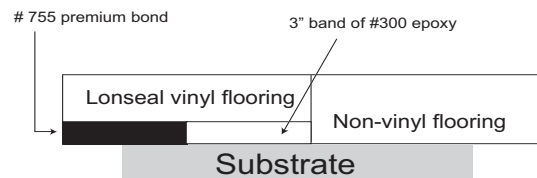
- Apply masking tape to the completed seam and cut through tape at seam
- Fully insert the needle and apply Lonsealer into the seam through the masking tape
- After a few minutes, carefully pull the masking tape away from the seam and ensure to not drip Lonsealer on the surface of the flooring product.

**NOTE:** Lonsealer will not stick to the surface of urethane surfaced products (i.e. TOPSEAL) and will rub off when cured.

## Seaming to other flooring types

Lonseal sheet vinyl can usually be chemically or heat welded to most other PVC floor coverings using Lonsealer or standard welding thread.

- In cases where Lonseal sheet vinyl cannot be chemically or heat welded to another non-PVC floor covering (i.e. Linoleum), apply a transition strip or apply a 3" band of #300 epoxy along the seam against the other type of flooring.



## 9. Coving

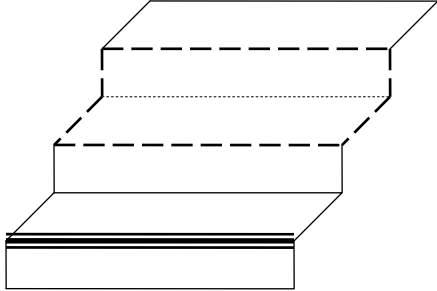
Coving to any standard height (4"-6") is possible with all Lonseal sheet vinyl flooring. Lonseal sheet vinyl flooring is pliable enough to be cut freehand, but, may be patterned as determined by the installer's skill and complexity of the job.

- Use the boot or butterfly method for finishing outside corners.
- When heat welding, consider using a hot spoon tool to "solder or fuse" seams through the radius of the cove and up the wall, instead of grooving and welding with thread.

## 10. Stair Installation

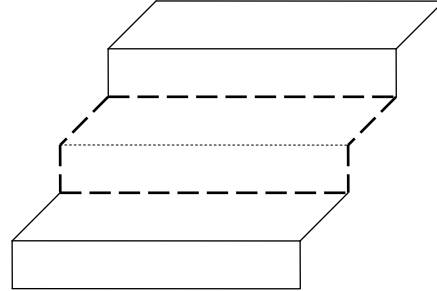
Install steps one at a time. After fitting step, using a 3/8" nap roller, apply either adhesive #755 or #400 (higher initial grab) to both the substrate and backing of the vinyl.

### Box Steps



#### **Situation 1 – Stair Nosing**

- Step 1 – install tread, then proceed with step 2
- Step 2 – install riser



#### **Situation 2 – No Stair Nosing**

- Step 1 – install riser, then proceed with step 2
- Step 2 – install tread

\*use suitable adhesive or fasteners

\*\*each section of flooring is specified by the dotted lines

### Floating Steps

Wrap the whole tread and adhere with # 400 Contact adhesive.

### Stair Nosing

Standard stair nosing can be installed over smooth Lonseal sheet vinyl flooring. When installing heavily embossed product and applying stair nosing, consider sourcing stair nosing that allows the vinyl to be tucked under a lip.

If no stair nosing is to be used; the best technique to wrap the stair nosing for a tight fit, would be to groove the backing of the material  $\frac{1}{2}$  the thickness of the vinyl, to allow for the proper nosing angle.

**Note:** Labor will not be reimbursed for replacement of damaged or defective product that is deliberately installed. Every effort has been made by Lonseal, Inc. to provide accurate product and application information.

### **REMINDERS:**

**Please ensure moisture emission tests are run on the concrete prior to installing Lonseal sheet vinyl**

**Initial maintenance is essential to the life cycle of Lonseal sheet vinyl products. Please ensure maintenance begins 48 hours after installation.**

## Lonseal Technical Support

Please note that installation conditions may vary and must be considered during the installation application process. Additionally, there are many non-standard applications/installations that require prior approval from Lonseal Technical Support for Lonseal warranty terms to apply.

**EMAIL:** [technical@lonseal.com](mailto:technical@lonseal.com). **FAX:** (310) 830-9986 – Include “TECH SUPPORT” in all caps in the subject line.

**ONLINE:** [www.lonseal.com](http://www.lonseal.com), click on Contact Us. Be sure to include “TECH SUPPORT” in all caps at the start of the comments/questions field.