

## **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*

- 1. Product Information**
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## 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, vertical 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 Products: *Technical Manual for Sport Flooring*
- Walls: *Technical Manual for Interior Vertical Products*
- Exterior: *Technical Manual for Exterior Products*

## 1. Product Information

Lonseal manufactures and distributes resilient sheet vinyl flooring. Several products in our collection have a factory applied UV cured urethane coating. Use special care not to scratch the surface when installing. As required by the warranty all Lonseal 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 and may result in seams gapping.
  - **Standard roll** sizes are 6' wide by 60' long

### Cutting and Fitting

Lonseal sheet vinyl is quite supple and easily 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. Substrate temperature range should be 65° -85°.

### **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 or 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.

- White underlayment patch may be used where not subjected to commercial traffic.
- Luan, OSB and some particle board underlayments are not acceptable substrates.
- Self-leveling underlayment makes timely and cost effective alternatives to hand troweled smoothing practices possible. Use primer as directed by the manufacturer.

Concrete substrates must be clean, dry, and free of surface contaminants and bond-breakers before prep work begins.

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

## 4. Adhesives and Sundries

Use only Lonseal adhesives which are manufactured to the highest standards. There are no equals available off-the-shelf. Find detailed application guidelines on the bucket labels.

**Note:** *More is not better! Do not use more adhesive than necessary to achieve a good bond!*

### **Double Face Tape (DFT): When and Where to Use**

Use under all straight seams that are chemically welded. Do not use for repairs, or under curved seams. Use when chemically sealing the seams or when heat welding the same day.

### **No. 555a Acrylic:**

555a goes on white and turns clear. It is trowel applied for floor applications over all acceptably prepared substrates (concrete, plywood, metal, fiberglass, etc.)

**Note:** 555a 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. Good for coving, stair and wainscot applications.

- 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*.

### **No. 300 two-part epoxy:**

Trowel applied for floor applications over all acceptably prepared substrates (concrete, plywood, metal, fiberglass, etc.) 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 fine notch trowel will satisfy bond requirements; too much epoxy can take a while to off-gas and can cause bubbles.
- Cold temperatures slow curing, hot temperatures speed it up. Plan accordingly. Use for adhering Lonseal sheet vinyl against non-PVC floor coverings absent a mechanically bonded transition strip. Apply a three-inch band of No. 300 epoxy where Lonseal sheet vinyl is finished against other non-PVC flooring like; Linoleum, ceramic tile, carpet, wood etc.

**Note:** N0. 300 epoxy is not required under hospital beds.

### **No. 400 Acetone based Nitrile Rubber Contact Adhesive:**

Use straight from can and do not thin or dilute. Short open time.

- Apply a good 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 not transfer to the fingers. Potential adhesion is quickly lost if the surfaces are not mated as described.

### **Lonsealer:**

Tetrahydrofuran and PVC in a 4.7 ounce tube will seal seams by melting them together.

## 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.

## 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 resilient sheet 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 order.
  - Use a pencil to mark the vinyl with direction indicators. Never use a pen or permanent marker to mark on the sheet vinyl.
  - Keep seams out of sight and from heavily trafficked areas.
  - Minimize cross seam.
  - Because a certain degree of color variation can occur as a result of the manufacturing process, all rolls of Lonseal product 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 top paper on 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 DFT with adhesive, but remember to pull the top paper 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. resilient 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 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 trace-cut
- Trim excess pattern (about 1/2"-5/8") from sheet edge on wood patterns like Lonwood Dakota, etc.
- Embossed patterns may not match on long seams

**Urethane Surface Note:** Seams of these products may be fused chemically with Lonsealer, or heat welded (using the Lonseal urethane nozzle).

## **Heat Welding Seams**

DFT is optional under seams that are to be heat welded if the seam will not be welded until the glue is dry (typically 12-24 hours after installation to allow adhesive to cure). If the seam must be heat welded immediately, use DFT under it.

**Note:** Glazing the thread prevents it from getting dirty and is required on factory UV urethane products. PVC surfaced vinyl may glaze (develop a shiny surface) along the seam. Certain types of nozzles can help to reduce or eliminate glazing. The Lonseal Urethane Nozzle greatly reduces the glaze effect.

- Heat welded seams must be grooved and fused with Lonseal's 4 mm PVC 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.
- Use the heat gun to glaze the trimmed welding thread by holding the nozzle about 1" above and moving along the seam. Caution: Do not scorch factory UV urethane.
- Always heat weld the seams on the following: Commercial kitchens, commercial bathrooms, shower rooms, all wet areas, and all sport installations.

## **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 1/8" to 3/16" 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. Use this method to weld seams on Lonstage Matte (and any other smooth vinyl as needed or required in the specification):

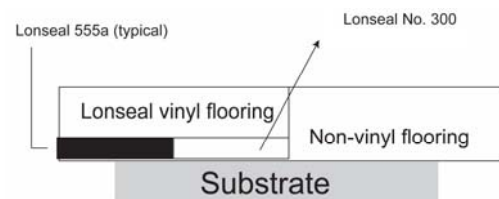
- Apply masking tape to the completed seam and cut through tape at seam
- Fully insert the needle and apply Lonsealer into the seam through the masking tape
- After a few minutes, carefully pull the masking tape away from the seam

**Lonsealer and Urethane Surface Note:** Lonsealer will not stick to the surface of UV coating 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 PVC 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 Lonseal No. 300 epoxy along the other type of flooring.



## **9. Coving**

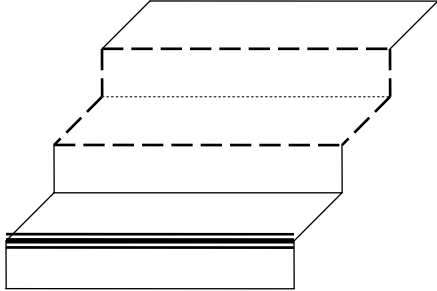
Coving to any standard height is possible with all Lonseal sheet vinyl. Lonseal vinyl is supple enough to be cut freehand, but, may be patterned as determined by the installer's skill and complexity of the job.

- 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

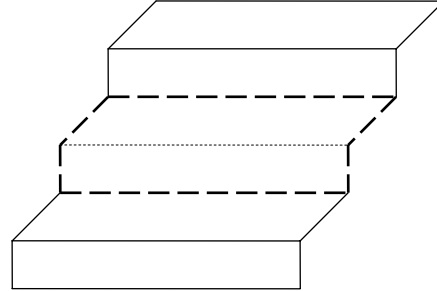
Install steps one at a time. After fitting step, using a 3/8" nap roller, apply either adhesive No. 555a or No. 400 (higher initial grab) to both the substrate and backing of the vinyl.

### 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 No. 400 Contact

### Stair Nosing

Standard stair nosing can be installed over smooth Lonseal vinyl. 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) 952-7651 – 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.