

Division

9

Technical Manual for Interior Vertical Products

DIVISION 09 72 00 SPECIAL WALL SURFACING

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LEAVE AN IMPRESSION

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Guidelines for Vertical and Overhead Installation

Before you begin, please read this page and then the rest of the contents carefully. This Guideline is designed to aid both the specifier and installer with directions and instructions that will increase the likelihood of a beautiful and successful installation.

This Guideline is intended to provide generally accepted installation principles. While there are certainly more ways to perform installations, the guidelines contained herein constitute practices found to be successful and acceptable to Lonseal, Inc. Please consult with the Technical Department if specifications call for installation techniques that are not addressed in this Guideline.

These guidelines cannot address every contingency, but provide basic instructions for vertical and overhead (wall and ceiling) installation, and an overview of proven application methods. It is up to the specifier and installation contractor to familiarize themselves with the techniques and materials discussed herein and to adapt them to suit the installation.

Mock-ups

Lonseal advises specifiers and designers to demand that a mock-up be provided. Mock-ups are indispensable tools that provide definitive visual and tactile input for both specifier and installer.

Additional Information

The specifier or installation contractor assumes responsibility for determining that all applicable codes have been checked prior to specifying or installing any Lonseal material for vertical or overhead applications. Lonseal assumes no liability for applications whatsoever because we have no knowledge of where, or for what purpose, our products are used. Information and products detailed in this Guideline are deemed accurate as of the date of publication and are subject to change without prior notice.

A typical installation requires a minimum crew of three, or more if the installation is very complex. Unless otherwise noted it is assumed that material will be hung vertically in sheets that extend from floor to ceiling.

With the exception of Wainscoting and elevator cars, Lonseal does not recommend "railing" or installing sheets horizontally because they are simply too difficult to handle. Railing should not be attempted exceeding 6' because making seams horizontally is, at the very least, difficult without plenty of scaffolding and personnel. In addition to other problems, seam sealer may drip downward, marring the face of the vinyl.

Consult the Technical Section of www.lonseal.com for the latest guidelines regarding any aspect of Lonseal installation methods and products.

Lonseal vertical surfacing materials must be the last finish material installed after completion of all other trades.

Due to manufacturing method, pattern not guaranteed to match at factory edges or at end seams.

Site Conditions

Store and acclimate materials with the permanent HVAC to maintain temperatures on the surfaces between 65° and 85° F. Allow cut sheeting to lay flat and relax overnight.

Seam Issues

Make all seams on smooth products using an Underscribe Tool as discussed later. Set the tool to make the seam slightly full.

NOTE: On heavily embossed materials, trim one edge of the overlapping sheet and use to trace-cut the seam.

Plan for "Divergence Breaks" or "Corrective Seams" in the installation to allow for structural anomalies. For example, it is not possible that material can be continuously wrapped from the floor up the wall or from the wall onto the ceiling without stress and distortion. Since no two divergent planes intersect flawlessly, make allowance for a cross seam in order that the inevitable adjustments can occur. See detail, Figure 1

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Chemical Weld

Seams on dark material are generally only visible because the chemical sealer dries to a different sheen than the surrounding vinyl.

Seams on light colored material will be more visible than dark material because they just are. Additional reasons include.

- Edges of light colored materials get dirty and should always be trimmed. Obviously, trimmed edges should be handled carefully.
- If applied too heavily, chemical sealer magnifies and accentuates seams, which look worse if they are dirty. Therefore, apply chemical sealer sparingly.
- Airborne dust can lodge in freshly applied sealer. Protect wet seams if airborne dust is likely.

Heat Weld

- Allow for adhesive to set overnight before grooving the welded seams.
- Heat welding possible on embossed where matching thread is available, but not as aesthetically pleasing as chemical sealing
- Use a nozzle designed for wall coverings. Narrow heat focus means less gloss on the seam area.
Available from:

- Winkelman Sales (800) 929-4326 Part # WDD S65
- Janser (800) 245-2120 Part # 224 700 300

Tools

NOTE: Not every tool is needed for every application.

1. Scaffolding
2. Fan(s)
3. Straight Edges: assorted lengths
4. Chalk line
5. Bubble level 3 or 4 foot
6. Rafter Square
7. Seam and Laminate Rollers
8. Gouge or Grooving tool*
9. Hot Air Gun
10. Pole Sander and Sandpaper
11. Geocel Caulk-clear/paintable*
12. Combination Underscriber equipped for pins or blades*
13. Paint Roller Frames, Extension Poles and Heavy Nap Covers
14. Spray Bottle with Clean Water
15. Protective Face, Skin and Respirator Gear
16. Clean White Terrycloth Rags
17. Patching Compound and Tools
18. Masking Tape, Assorted Widths
19. Standard Heat Gun and Skiving Tools*

* Available from Lonseal

Primers, Adhesives, Caulking and Chemical Sealer

Primer: KILZ Latex Primer

- Coverage 400-600 ft² per gallon.

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Adhesive: Lonseal 555a Transitional Acrylic

- Approximate coverage: 250-300 ft² per gallon
- Apply evenly to wall/ceiling and vinyl with a medium nap paint roller. Allow adhesive to become clear before hanging vinyl.
- Adhesive develops excellent initial bond and provides instant grab. As it continues to cure it becomes firm and loses the aggressive grab. Therefore, it is important to hang the vinyl just after the adhesive goes clear.

Adhesive: Lonseal 400 Contact¹

- Coverage: 200+ ft² per gallon. Use #400 at seams and only where necessary to provide initial support to the vinyl.
- Apply to both surfaces, vinyl sheet and wall or ceiling with a paint roller. Must be tacky to touch before placing the vinyl. Use #400 at seams and only where necessary to provide initial support to the vinyl.

NOTE: Adhesives may off gas producing some bubbles that require piercing.

**Lacquer Thinner

- For cleaning adhesive residue

Geocel 2300 Adhesive Caulk

- Available from Lonseal or local distributors
- Coverage typical 100' at 3/8" wide thin film.
- Apply to edges where vinyl abuts trim mould and into any joints where vinyl terminates into ceiling or wall. See detail, Figure 1 / See **Finish Trim** bottom of page 6

Lonsealer "Type C" Chemical Seam Sealer

- Apply to all seams immediately after they are made ready. Do Not Wait Overnight! Apply as described in the section, Seam Treatment Options.

Heat Welding Thread

- For seams and joining ceiling and wall. See detail, Figure 1

Observe the following CAUTIONS when working with the above materials:

Do Not Breathe Vapors or Use Without Adequate Ventilation!

Do Not Ingest, Get In Your Eyes or On Your Skin!

Use Respirators, Skin and Eye Protection!

Avoid Flames or Sparks in the Presence of Vapors From These Chemicals

¹Contact cement is only for seams and/or trim work etc. Contact adhesives are not recommended over the entire area due to fumes. Additionally, any unflashed solvent in the adhesive can cause bubbles.

Surface Preparation

1. Make smooth without protuberances or holes. Repair cracks, fill indentations with a suitable material that is compatible with the type of substrate and allow to thoroughly dry.
2. Painted surfaces: Abrade with medium grit sandpaper to roughen the surface.
3. Brush or vacuum clean.
4. Prime and let it dry thoroughly.

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Suitable Substrates

Properly prepared drywall, MDF, plywood, concrete, cement board, fiberglass, masonite or metal. All surfaces must be clean and smooth to ensure proper adhesion of primer.

Wainscoting

Some contractors like to split the material down the center and apply it to the wall in long strips. This minimizes seams, but doesn't necessarily make installing easier because the material is hard to handle when so long. Lonseal doesn't take a position on method of application because it is a matter of choice to the professional installer. We do require the following:

1. Top and bottom of sheeting must be mechanically protected by means of standard cove cap, chair rail, base molding or sanitary cove.
 - If retrofitting to existing ceramic sanitary cove, either install cove cap inverted or apply a bead of Geocel 2300 to seal and affix the edge of the vinyl.



NOTE: Refer to **Installation: Seams and Application** for further application information.

Prefabricated Wall Panels

Frequently, the sheeting is adhered and trimmed off site to panels that are later assembled onsite as needed. This offers the advantage of controlled installation. The critical issue is using the correct type adhesive, which will provide outstanding bond and not stain the vinyl. For that reason, Lonseal recommends only contact adhesives that are based on Nitrile rubber compounds such as our #400 contact adhesive.

Installation: Seams and Application

1. Lay out and mark seam location allowing for overlap on factory edges. Cut small notches, or "keyholes" to make visual alignment easier. This technique is especially helpful if working with printed or heavily embossed materials. See detail, Figure 2
2. To both the substrate and vinyl, apply Lonseal #555A adhesive everywhere else and allow it to get tacky-almost dry to the touch. The adhesive color will change from opaque to nearly translucent.
 - Like contact adhesive, #555A develops instant bond. Spraying a small amount of water will promote the initial slippage needed to accurately place the sheet.
3. To both the substrate and vinyl, apply (diluted) #400 contact adhesive in a six-inch wide band centered on the seam and at the top.
 - Apply a 6" band of #400 contact adhesive at the top of the wall (8' typical wall height) and the vinyl sheeting. For taller walls, apply a wider band of #400.

NOTE: The height on some applications may require solid scaffolding. Additionally, it may be necessary to temporarily, stay nail the material at the top.

4. Place the first sheet into the adhesive and roll thoroughly in both directions up to the seam area. Roller image, Figure 3
5. Spray a small amount of water on the #555A only to the starting area of the next piece to allow slippage and make positioning the piece easier. Position the second sheet in place, aligning and matching the embossed pattern through the "keyholes". Roll thoroughly.

NOTE: Do not try to force the material straight if it becomes misaligned. Remove quickly.

Outside and Inside Corner

1. Before applying adhesive, hold sheet in place and mark, (or measure and mark) sheet backing with pencil. Using a gouge/groove tool remove 1/2-2/3 of backing material at pencil line. This makes it easy to bend the material and make a sharp corner. Gouge/groove tool image, Figure 3
2. Apply Lonseal #400 contact adhesive 6" on wall, 3" on either side of the corner and on the sheeting 3" either side of the gouge.

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3. If necessary, warm vinyl with a hot air gun while wrapping the corner and roll thoroughly. Do not stretch the warmed material.

Overhead

NOTE: Lonseal recommends ripping/cutting the sheets in half lengthwise because experience shows that it makes overhead installation easier and simpler. Of course, the downside is more seams, but weighed in the balance against likely disaster, extra seams are worth the effort. Seams must be ripped on site. Lonseal cannot rip the seams "at the factory".

1. Position first sheet in the center of the ceiling and install subsequent sheets outward towards walls. Ensure that sheets are all running in the same direction to avoid "shading" differences. Mark directional arrows on the back with pencil to be sure.
2. Overlap, "keyhole" and under-scribe the factory edges as previously discussed.
3. Don't contaminate the ripped seams while applying adhesive! Clean adhesive contamination from edges immediately with a damp cloth.
4. Work from one end to the other. There should be no pattern run-off along the ripped seams because the material is under identical tension, etc.
5. Use a Laminate roller and roll material in both directions. Figure 3
6. Finish seams as described in the following section, Seam Treatment Options.

Seam Treatment Options

Options for seam treatments are chemical fusion or heat welding with matching welding thread. Shake Lonsealer "Type C" tube at the start of the day.

NOTE: Wear protective goggles etc. for the following steps.

Lonsealer "Type C" chemical weld application

Vertical

- Start at top of seam and work downward maintaining a light and even flow. Follow a straight edge as shown in the Lonsealer "Type C" enclosed instructions.

Overhead

- Prepare Lonsealer tube as above and squeeze a steady amount of sealer directly onto the seam. Wear face and eye protection and use plenty of ventilation!

Heat Welding with matching Lonseal welding rod (confirm color availability).

- Allow adhesive to cure overnight, use gouge/groove tool to groove material at seam. Gouge/groove tool image, Figure 3
- Apply welding thread with a standard heat gun and nozzle.
- Allow welding thread to cool and skive smooth (per the Lonseal Installation Manual).

Finish Trim (Supplied by Others)

NOTE: Steps must be taken to insure that all edges are secured to prevent curling as the vinyl ages. This means that they must be caulked (with adhesive type caulk) or held down with a trim piece. Lonseal is not responsible for burst seams or material curling because shrinkage is natural for this material. Lonseal stocks an excellent caulk-Geocel 2300. See page 3.

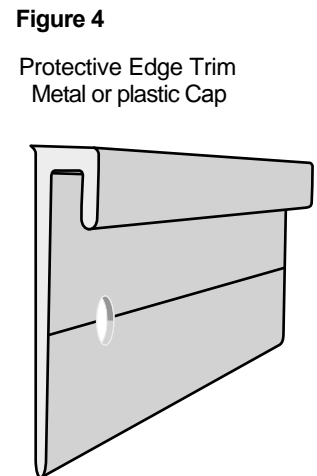
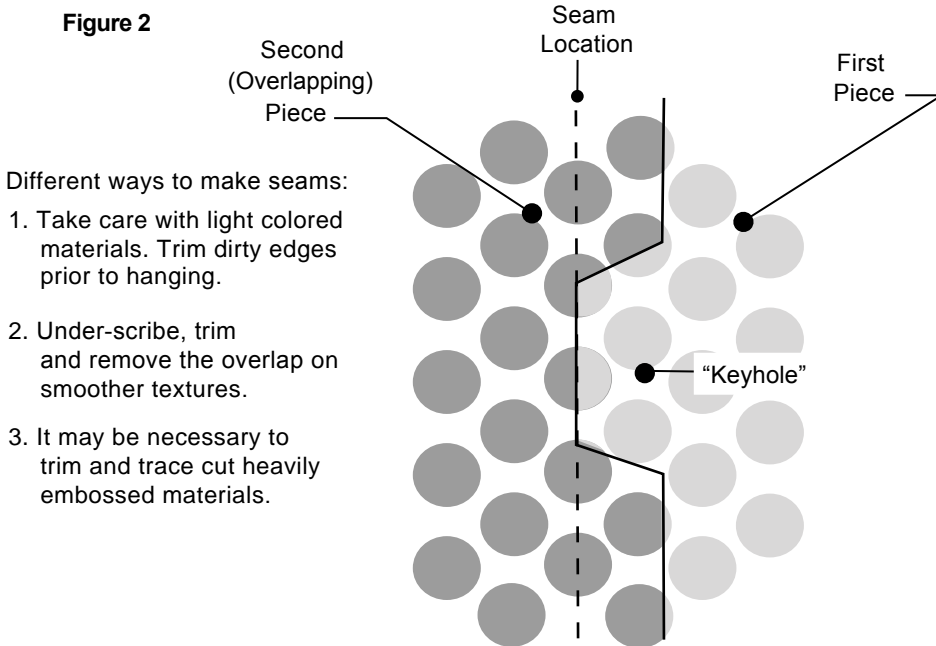
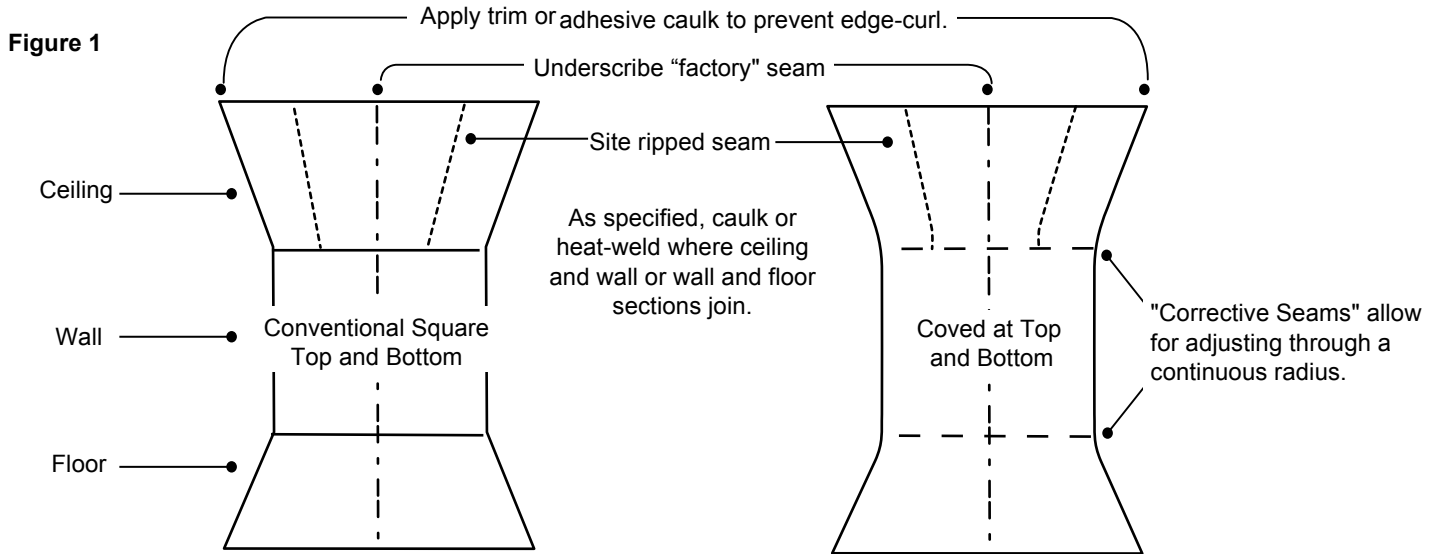
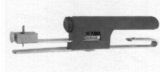


Figure 3

Gouge Tool



Combination Over Under Scribe Tool



Speed Nozzle
For Walcoverings



Laminate Roller

