

COMMERCIAL SHEET FLOORING INSTALLATION

GENERAL INFORMATION

Temperature

Congoleum sheet flooring products are designed to be installed in enclosed, heated areas only.

The job site, all flooring material and adhesive should be conditioned at a constant temperature between 65°F (18°C) and 85°F (29°C) for 48 hours prior to, during, and 48 hours after installation. Thereafter, maintain room temperature between 55°F (13°C) and 100°F (38°C).

Storage and Handling

Store sheet flooring on a smooth floor or rack with continuous support in a clean, dry, interior area where it is protected from the elements. Stand 6' wide rolls on end whenever possible and secure to avoid injury from falling rolls. Ideal long-term storage temperatures range from 50°F (10°C) to 85°F (29°C). Individual sheets can be pre-cut but must be rolled face out around a rigid tube until ready for installation.

Suitable Substrates

Congoleum sheet flooring products are recommended for installation over properly prepared suspended wood floors, concrete on all grade levels, metal, terrazzo, ceramic, marble, and approved, existing resilient flooring. Refer to Section II Subfloor Recommendations for details.

Installation over existing flooring may reduce the indentation resistance of the new floor. The use of an embossing leveler is not recommended. The substrate must be clean, dry, smooth, structurally sound, and free of paint, varnish, oil, grease, wax, solvent and other foreign material that can inhibit the adhesive bond. Do not install flooring in areas where excessive moisture, hydrostatic pressure, or alkali conditions exist.

Self-Coved and Custom Installation

All Congoleum sheet flooring can be installed self-coved. Use a cove stick (minimum 1" [2.5cm] radius) at the floor/wall juncture and a cap trim on the wall to cover the exposed edge. Congoleum 3044 adhesive should be used to adhere flooring to the walls.

When installing overall or random chip designs, two or more colors can be mixed to create borders or custom insets.

Installation Procedure

Visually inspect material prior to installing. Do not install material with obvious defects.

Important: Resilient flooring can shrink when rolled face in. Congoleum recommends conditioning Specifications and Foundations prior to fitting by rolling it face in around a rigid tube for one or two minutes. This will reduce the possibility of shrinkage at end walls when flooring is turned back to spread adhesive. **Do not allow flooring to remain rolled face in for more than five minutes or seam edges may curl.**

Material can be fit to the room using free-hand knifing, pattern scribing or direct scribing. Avoid creasing or folding material sharply; breakage can occur. Several sheets can be laid out and fitted provided they are adhered and seamed within four hours.

NOTE: Seam edges can curl if sheets are allowed to lay out unadhered for an extended period of time.

Adhesive/Application

Use Congoleum 3044 Premium Flooring Adhesive for adhering all Congoleum commercial sheet flooring.

Trim flooring to fit the room then lap or tube one-half of the sheet back on itself to expose the subfloor. Avoid creasing or folding material sharply or leaving it rolled face in for more than a few minutes. Spread the adhesive uniformly over the exposed subfloor with the recommended notched trowel. The notch size will be determined by the type of flooring and the porosity of the subfloor surface.

For Specifications and Foundations:

Porous surfaces (wood or concrete)
1/16" wide, 1/16" deep, 1/16" apart

Nonporous surfaces (old resilient flooring, ceramic, marble, terrazzo and metal)
1/16" wide, 1/32" deep, 1/32" apart

For Flor-Ever Plus use:

For all surfaces
1/16" wide, 1/32" deep, 1/32" apart

For one piece installations, spread the adhesive in a straight line up to the fold in the material so the opposite side can be turned back without damaging the backing.

Lay flooring into wet adhesive. On installations over nonporous surfaces, it is a good idea to wait a few minutes for the adhesive to tack-up before position-

ing the flooring. The wait time will depend on the temperature and humidity, but should not exceed 10 minutes. Do not allow adhesive to dry or skin over. Roll flooring immediately in both directions with a 100-pound, three-section steel roller. **Do not omit this step.**

Repeat the procedure to adhere the opposite side of the sheet.

SEAMING

GENERAL INFORMATION

The recess scribe method is required for cutting seams in Specifications and Foundations; the double-cut method is required for cutting seams in Flor-Ever Plus.

When planning the layout, place seams:

- In the least conspicuous and least traveled areas whenever possible.
- A minimum of 6" (15.2cm) away from plywood underlayment joints.
- A minimum of 6" (15.2cm) away from seams in old flooring or within the center of a row of tile.

Cut seams, removing the factory selvage edge, including fill pieces whenever possible. Note: a shade or texture variation can occur when seaming other than factory selvage edges. Avoid placing cross seams, also referred to as butt seams, in conspicuous areas because they are normally more noticeable. Quarter turning sheets is not recommended.

When a job requires more than one roll of material, make sure all rolls are taken from the same color lot and installed with roll register numbers in consecutive order. Lot numbers and register numbers are printed on the product label. Install sheets in the sequence they were cut from the roll.

RECESS SCRIBE SEAM METHOD FOR SPECIFICATIONS AND FOUNDATIONS

Cutting and Adhering

Position and fit the first sheet in the room; then trim the factory selvage edge to prepare the seam. Remove 1/2" (12.8mm) of selvage material using a selvage trimmer or straight blade utility knife and steel straightedge (Figure 1).

Mark the subfloor along the seam edge with a lead pencil to serve as a guide line for spreading adhesive (Figure 2). Avoid marking the edge of the sheet with a pencil. Lap one-half of the sheet back to expose the subfloor and apply the adhesive as previously described.



Fig. 1. Hold the utility knife at a 90° angle, cut a smooth, straight edge.



Fig. 2. Carefully spread adhesive up to the guide line.

Lay flooring into wet adhesive and roll in both directions with a 100-pound roller. Repeat the process to adhere the opposite side of the sheet.

Position and fit the second sheet in the room, allowing a 1/2" (12.8mm) overlap at the seam. Remember to reverse the sheets.

NOTE: If additional sheets will be installed, prepare the second seam by trimming the factory selvage edge as previously described.

Adhere the second sheet and roll with a 100-pound roller to within 2" (5.1cm) of the seam.

Complete the seam immediately before adhesive sets up.

To complete the seam, set the recess scribe to produce a net fit at the seam (Figure 3). It is important that the seams are scribed and cut net to avoid seam peaking or curl. Check the setting on a piece of scrap.

Hold the recess scribe knob against the edge of the bottom sheet and lightly score the top sheet with the pin. Do not score too deeply (Figure 4).

NOTE: Cut the seam, following the score mark with a sharp straight blade utility knife held on a 90°

angle (Figure 5). A light cut followed by a finish cut will normally produce the best seam appearance.

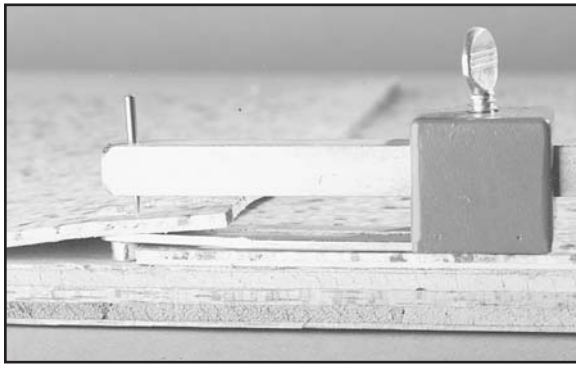


Fig. 3. Scribe seams net.



Fig. 4. Do not score too deep.



Fig. 5. Cut seam at a 90° angle following the score mark.

Position a piece of scrap flooring under the edge of the top sheet to protect the bottom sheet from being cut. Keep the scrap out of the adhesive.

Remove the scrap flooring and roll the top sheet into place with a steel hand roller, without forcing adhesive into the seam cut (Figure 6). Wipe the entire length of the seam with a damp cloth or sponge to remove any surface adhesive. Then roll the seam with a 100-pound roller (Figure 7).



Fig. 6. Roll seam edge level.

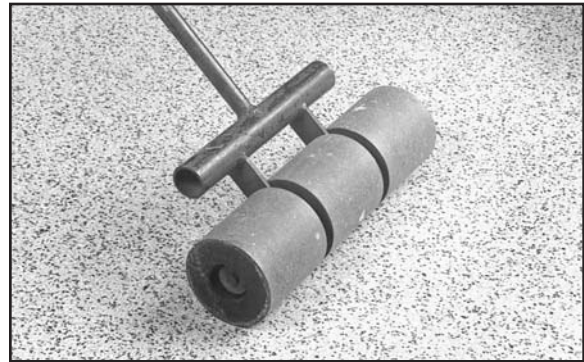


Fig. 7. Roll seam with a 100-pound roller.

Remove the burr at the seam with the back edge of a linoleum knife, using care to avoid scratching the surface. Remove any remaining adhesive residue from the seam cut and surrounding area with a cloth dampened with mineral spirits.

CAUTION: Mineral spirits is flammable. Read and follow cautionary instructions on container label.

CHEMICAL WELDING SEAMS ON SPECIFICATIONS AND FOUNDATIONS

All seams that will not be heat welded must be sealed by the end of the day with SU80 or SU92 Seam Sealer. Shake seam sealer one-half hour before use. Unlike other Congoleum floors, seams in Specifications and Foundations are top sealed only. **DO NOT ATTEMPT TO INSERT THE APPLICATOR TIP INTO THE SEAM CUT;** instead, hold the applicator perpendicular to the seam with the slotted fin turned down (Figure 8).

CAUTION: SU80 and SU92 Seam Sealer – Extremely flammable. Vapor Harmful. Eye and Skin Irritant. Use with adequate ventilation. Keep away from heat, sparks, and open flame.

Starting at one end of the seam, move slowly with a continuous motion, while applying light pressure on the squeeze bottle. Apply a bead of seam sealer

1/8" to 1/4" (3.2mm to 6.4mm) wide centered over the seam cut.



Fig. 8. Do not insert the applicator tip into the seam cut.

NOTE: Seam Sealer applied to one edge only can result in seam failure. Check seam for proper sealer application. Protect seam sealer from dust and traffic for at least 2 hours or until dry. Keep traffic to a minimum for the next 48 hours.

HEAT WELDING SEAMS IN SPECIFICATIONS AND FOUNDATIONS

Heat welding is a seaming method that involves heating the floor covering and vinyl welding rod to a sufficient temperature to melt and fuse them together. Heat welding should be done by a trained professional.

Seam Cutting

NOTE: The following procedure is based on the use of a 4mm vinyl heat welding rod. Adjust the procedure accordingly if a different size rod is used.

Cut and adhere the seam using the recess scribe method as previously described. The seam can be cut with a maximum 1/64" (.4mm) opening to provide a guide for the grooving tool. Allow the adhesive to set up for 24 to 48 hours before heat welding.

Grooving

After adhesive has set, groove out the seam using a power or hand grooving tool (Figure 9 and 10). Adjust the grooving tool to cut a "U" shaped groove, 3 mm wide, extending two-thirds into the wearlayer thickness (Figure 11).



Fig. 9. Power grooving tool.



Fig. 10. Use a straightedge as a guide when using a hand grooving tool.

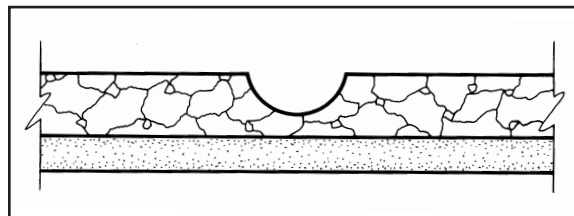


Fig. 11. Do not extend the groove into the felt backing.

Welding

Use a heat welding gun equipped with a standard 5 mm, round, speed nozzle (Figure 12) or welding nozzle with integrated welding rod roller (Figure 13). Pre-heat the welding gun to 350°C to 500°C (662°F to 932°F). The temperature will vary depending on the welding speed.



Fig. 12. Heat welding gun equipped with speed nozzle.

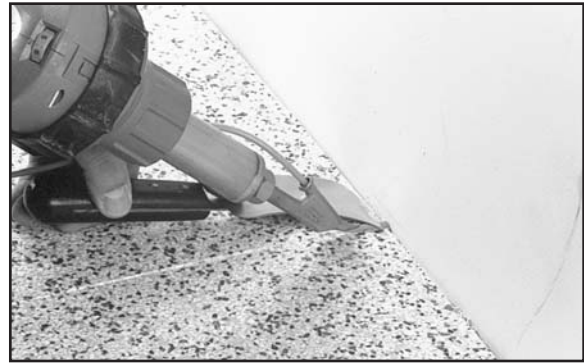


Fig. 14. Force the rod into the seam groove.

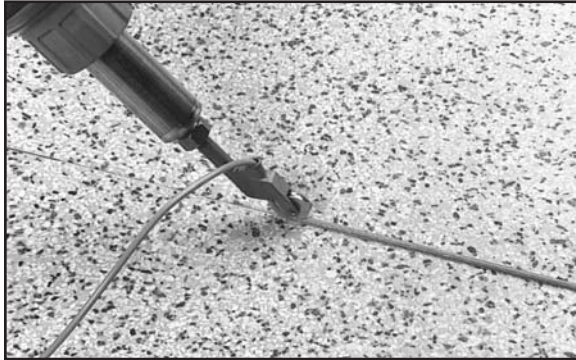


Fig. 13. Heat welding nozzle equipped with an integrated welding rod roller.

Move slowly at a constant speed applying sufficient heat to properly weld the seam (Figure 15).

As you approach the end of the seam, it will be necessary to stop and change directions.



Fig. 15. Apply firm pressure while moving at a constant speed.

CAUTION: Heat welding equipment is operated at high temperatures and can cause severe burns. Handle equipment carefully and use safety precautions to protect yourself and others on the job site. Keep away from combustible, flammable and explosive substances. Use good ventilation when heat welding. Avoid breathing fumes. Refer to manufacturer's operating manual for additional precautions.

Check the heat setting on a piece of scrap material. A small ridge will form on the sides of the welding rod along the seam groove when properly welded. A low temperature setting or moving too fast will result in a weak bond. A high temperature setting or moving too slowly can scorch the seam edges.

Position the welding rod along the seam so that it does not get in the way. Starting at one end of the seam, insert the welding rod into the nozzle and force it into the seam groove (Figure 14).

Joints

To prepare the joint, cut a tapered groove from the bottom of the rod to the top (will be about 3/8" or 9.5mm long) as shown in Figure 16. Then complete the weld from the wall to the rod in place, starting at the wall and extending to the tapered groove. Overlap the groove in the welding rod in place to join them together.



Fig. 16. Cut a tapered groove at the joint.

Finishing

Remove excess welding rod while warm, not hot, with a sharp spatula knife and spatula guide or trim plate (Figure 17). Allow welding rod to cool completely, then trim the seam weld again without the spatula guide (Figure 18). **NOTE:** If welding rod is not allowed to cool before final trimming, shrinkage can occur resulting in a concave joint. Always use a sharp spatula knife held on a slight angle to produce a smooth finish.



Fig. 17. Trim the welding rod using a spatula guide.



Fig. 18. Use a sharp spatula knife to produce a smooth finish.

OVERLAP AND DOUBLE-CUT SEAM METHOD FOR FLOR-EVER PLUS

Cutting and Adhering

Double-cut seams must be cut in a dry zone.

Mark the subfloor with a pencil where the seam(s) will fall, then snap parallel chalk lines 12" (30.5cm) on each side of the seam (Figure 19). The chalk lines will serve as a guide for spreading adhesive and provide a dry zone for seaming.

Install the first sheet, adhering it up to the chalk line. There should now be 12" (30.5cm) of unadhered flooring along the seam edge.

Position the second sheet in the room and match the design at the seam (Figure 20). Follow the specification printed in the selvage sheet reversal or non-reversal. Most Congoleum floors require reversing the sheets. Floors with geometric designs will also have matching information printed in the selvage.

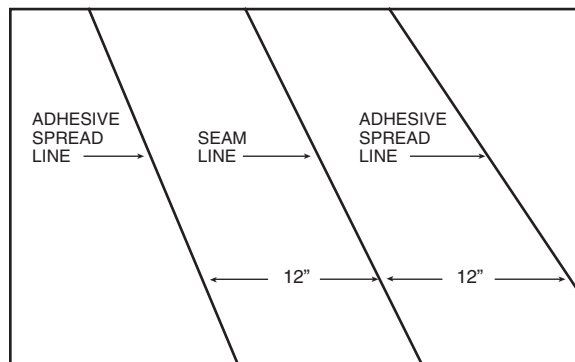


Fig. 19. 24" (61.1cm) dry zone for seaming.

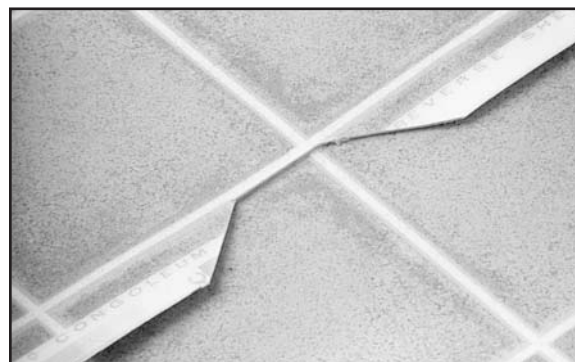


Fig. 20. Cut a notch in the selvage to visually align the seam.

Reverse Sheets – Align C to C or I to I

Do Not Reverse – Align arrows to arrows

If design run-out occurs, it can normally be corrected easily by rolling the longer sheet face in for a few minutes. (Do not allow flooring to remain rolled face in for more than five minutes as it will cause edges to curl.)

After matching the design, adhere the second sheet, leaving 12" (30.5cm) unadhered at the seam. You will now have a 24" (61.1cm) dry zone.

Position a 2" (5.1cm) to 3" (7.6cm), wide piece of scrap flooring under the seam to add fullness and protect the substrate (Figure 21).

Overlap the edges and cut the seam with a sharp utility knife and a straightedge. Hold the knife perpendicular to the floor so the seam edges are cut square (Figure 22).

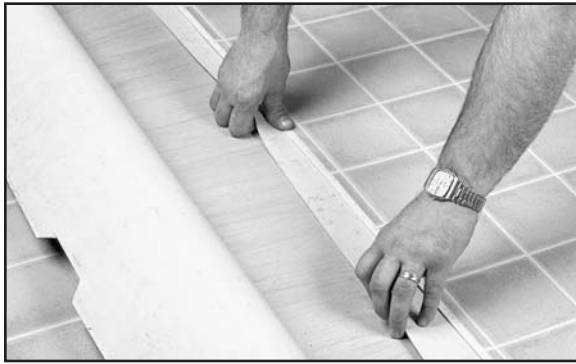


Fig. 21.

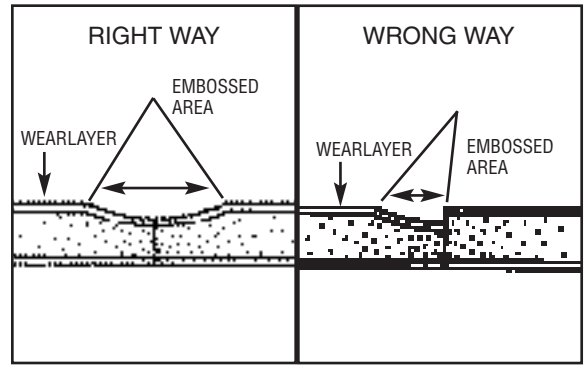


Fig. 24



Fig. 22.



Fig. 25.

When seaming geometric designs, position the seam in the center of an embossed line (Figure 23).



Fig. 23.

Do not cut the seam on the edge of an embossed line because this will create a high/low condition resulting in a weak seam weld (Figure 24).

Remove the trimmed selvage and scrap flooring; turn the edges back and adhere the seam area (Figure 25). Place the sheet which was on the bottom during seam cutting into the wet adhesive. Then tuck the other sheet into place by bending the edge slightly.

IMPORTANT: Every precaution should be taken to avoid getting adhesive into the seam cut. Allow adhesive to tack-up for a few minutes before repositioning the seam edges. If adhesive is squeezed into the seam, lift the edges and remove it with a clean, cloth dampened with water.

Roll the seam area with a 100-pound roller, followed by a steel hand roller to level the edges.

CHEMICAL WELDING SEAMS ON FLOR-EVER PLUS

All seams in Flor-Ever Plus must be sealed by the end of the day with SU80 or SU92 Seam Sealer.

CAUTION: SU80 and SU92 Seam Sealer – Extremely flammable. Vapor Harmful. Eye and Skin irritant. Use with adequate ventilation. Keep away from heat, sparks, and open flames.

Seams must be clean and dry.

Shake seam sealer in its original container one-half hour before use.

Insert the slotted fin of the TO70 applicator nozzle into one end of the seam (Figure 26) and apply light hand pressure on the squeeze bottle to con-

trol the flow. Move slowly with as few interruptions as possible and apply a bead of seam sealer 1/8" to 3/16" (3.2mm to 4.3mm) wide centered over the seam cut (Figure 27).

Protect seam sealer from dust and traffic for at least 2 hours or until dry. Keep traffic to a minimum for the next 48 hours.



Fig. 26.



Fig. 27.

