

# Commercial Heterogeneous and Inlaid Installation Systems

Product	Gauge	Full Spread S-599, S-543*, or Flip with Heat Welded Seams	Full Spread S-599 or S-543* with S-761 at Seams	Concentrated Static & Dynamic Load Areas with Flip or S-240**	Perimeter Plus S-599 or S-543 with S-240** Flip with S-240**
Rejuvenations Classics Timberline Ambigu StoneRun	0.080" (2.0 mm)	X	X	X	
Possibilities		X	X	X	
Corlon		X	X	X	
Safety Zone Sheet		X		X	X

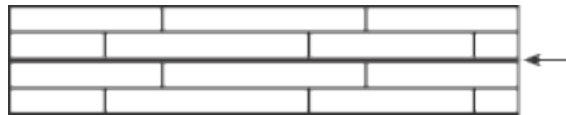
\* It is necessary to smooth out the adhesive trowel ridges using a medium nap paint roller.

\*\* It is necessary to smooth out the adhesive trowel ridges using a 3/16" (4.8 mm) nap paint roller. The purpose of this is to create a uniform application of the adhesive.

## Installation:

Location: All grade levels

Pattern Match: **TIMBERLINE** — No; do not reverse pieces (TM edge to non-TM edge). Pieces should be a random match so that the ends of the planks are offset at least 3"–6" (7.62 cm–15.24 cm).



**Ambigu, StoneRun and Safety Zone Sheet** — No; do not reverse pieces (TM edge to non-TM edge).

**Possibilities and Corlon** — No; reverse pieces (TM edge to TM edge)

Seam Method: Recess scribe

Seam Treatment: Heat weld or S-761 Seam Adhesive

Fitting: All methods

## Suitable Substrates:

All substrates listed below must be properly prepared and meet the requirements discussed in Chapter 3, Subfloors and Underlayments. There may be other exceptions and special conditions for these substrates to be suitable for the Commercial Heterogeneous and Inlaid Installation System.

- Concrete (on all grade levels)
- Steel, stainless steel, aluminum
- Approved suspended wood
- Ceramic tile, terrazzo, marble
- Existing resilient floors
- Polymeric poured (seamless) floors

## Job Conditions/Preparation:

- Resilient flooring should only be installed in temperature-controlled environments. It is necessary to maintain a constant temperature before, during and after the installation. Therefore, the permanent or temporary HVAC system must be in operation before the installation of resilient flooring. Portable heaters are not recommended, as they may not heat the room and subfloor sufficiently. Kerosene heaters should never be used.
- The surface shall be free of dust, solvents, varnish, paint, wax, oil, grease, sealers, curing compounds, residual adhesive, adhesive removers and other foreign materials that might affect the adhesion of resilient flooring to the substrate or cause a discoloration of the flooring from below. Spray paints, permanent markers and other indelible ink markers must not be used to write on the back of the flooring material or used to mark the substrate as they could bleed through, telegraphing up to the surface and permanently staining the flooring material. If these contaminants are present on the substrate, they must be mechanically removed prior to the installation of the flooring material.
- In renovation or remodel work, remove any existing adhesive residue\* so that 100% of the overall area of the original substrate is exposed.
- Allow all flooring materials and adhesives to condition to the room temperature for a minimum of 48 hours before starting the installation.
- The area to receive the resilient flooring should be maintained at a minimum of 65° F (18° C) and a maximum of 100° F (38° C) for 48 hours before, during and for 48 hours after completion. **NOTE: When using S-240 Epoxy Adhesive, the maximum room temperature should not exceed 85° F (29° C).**
- During the service life of the floor, the temperature should never rise above 100° F (38° C) nor fall below 55° F (13° C). The performance of the flooring material and adhesives can be adversely affected outside this temperature range.
- For concrete substrates, conduct moisture testing (moisture vapor emission rate [MVER]) and/or percent relative humidity (in-situ probe). Bond tests must also be conducted for compatibility with the substrate. Please refer to Chapter 3, Subfloors and Underlayments.
- Radiant-heated substrates must not exceed a maximum surface temperature of 85° F (29° C).
- Concrete floors should be tested for alkalinity. The allowable readings for the installation of Armstrong® flooring are 5 to 9 on the pH scale.

## Precautions:

- Do not install any polyester-backed flooring over existing asphalt tile or any adhesive residue.
- Do not install any polyester-backed products over existing on-grade or below-grade tile.
- Lead or brass surfaces must be abraded and then leveled with a 1/8" (3.18 mm) thickness of S-194 Patch Underlayment and Embossing Leveler mixed with S-195 Underlayment Additive. When this has dried, prime with S-185 Latex Primer and Additive, then install the fiberglass-backed floor using the recommended adhesive.

**Seams:** Refer to Chapter 7, Seams.

**Heat Welding:** Refer to Chapter 7, Seams.

**Flash Coving:** See Chapter 8, Flash Coving.

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\* Some previously manufactured asphaltic "cutback" adhesives contained asbestos (see warning statement on page xvi). For removal instructions, refer to the Resilient Floor Covering Institute's publication Recommended Work Practices for Removal of Resilient Floor Coverings.

## Fitting:

Unroll material and lay flat to allow the roll curl to relax before fitting. The lines and Armstrong® logo on the back of the flooring represent trademark edges. Material must be adhered within 4 hours of cutting and fitting. Before installing the material, plan the layout so seams fall at least 6" (15.24 cm) away from subfloor/underlayment joints. Do not install over expansion joints. When installing over an existing resilient floor, plan the layout so the new seams do not coincide with seams or joints of the existing installation. Recommended fitting procedures include freehand knifing, straight scribing or pattern scribing.

**Abutting Different Gauges of Resilient Flooring:** When installing thinner gauge material next to thicker gauge materials, install thicker material first and then butt a 12" (30.5 cm) wide piece of S-153 Scribing Felt against the thicker material. Adhere the Scribing Felt to the subfloor with Sheet Flooring—Premium Adhesive. Use the fine notching of the S-891 Trowel over nonporous substrates, such as existing resilient flooring, and use the regular notching of the S-891 Trowel over porous subfloors, such as wood and concrete. Use S-184 Fast-Setting Patch & Skim Coat or S-194 Patch, Underlayment and Embossing Leveler to feather the edge of the S-153 Scribing Felt to the level of the substrate. Allow the patch to dry completely before installing the flooring. Scribing Felt is not recommended for use under the entire installation.

### Adhesive Open Times and Trowel Notchings

Product and Adhesive	Open Time POROUS Subfloors	Open Time NONPOROUS Subfloors
Rejuvenations Possibilities Corlon with S-599	<b>Set-in-Wet:</b> Approximately 10–20 minutes (paste-like consistency) <b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart	<b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart
Rejuvenations Possibilities Corlon with S-543*	<b>Set-in-Wet:</b> Approximately 10–20 minutes (paste-like consistency) <b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart, must be paint rolled with medium nap paint roller	<b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart, must be paint rolled with medium nap paint roller
Rejuvenations Possibilities Corlon with Flip	<b>Dry-to-touch</b> only (no transfer of adhesive to finger)	<b>Dry-to-touch</b> only (no transfer of adhesive to finger)
Rejuvenations Possibilities Corlon with S-240**	<b>Set-in-Wet:</b> Approximately 10–20 minutes (do not allow to dry-to-touch) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart	<b>Set-in-Wet:</b> Approximately 10–20 minutes (do not allow to dry-to-touch) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart
Rejuvenations Possibilities Corlon with S-580*** (Flash cove areas only)	<b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Trowel Notching:</b> Brush-On or Roll-On	<b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Trowel Notching:</b> Brush-On or Roll-On
Safety Zone Sheet with S-599, S-543* or Flip	<b>Set-in-Wet:</b> (Optional) Approximately 10–20 minutes (paste-like consistency) <b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart <b>Flip:</b> Dry-to-touch only (no transfer of adhesive to finger)	<b>Dry-to-Touch:</b> Approximately 30 minutes (no transfer of adhesive to finger) <b>Fine Notch:</b> 1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart <b>Flip:</b> Dry-to-touch only (no transfer of adhesive to finger)

\* It is necessary to smooth out the adhesive trowel ridges using a medium nap paint roller.

\*\* It is necessary to smooth out the adhesive trowel ridges using a 3/16" (4.8 mm) nap paint roller. The purpose of this is to create a uniform application of the adhesive.

\*\*\* Apply two coats of S-580 Flash Cove Adhesive with a brush or roller 4" (10.2 cm) onto the floor as well as up the entire cove area. Allow adhesive to dry to a pressure-sensitive state between applications. The S-580 has unlimited working time.

**NOTE: If you cover wet areas or cover the adhesive too soon, blisters will form soon after rolling. Blisters caused by inadequate drying time will begin to show within 1 hour after rolling.** The amount of open time will vary according to job conditions, temperature, humidity, air flow and type of substrate. S-599, S-543 and S-240 adhesives are applied with fine notching [1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart]. Allowing the proper open time will help to minimize knee marks, roller marks and trapped air blisters.

• **Full Spread with S-599, S-543 or Flip Adhesives:**

Apply S-599 Or S-543 Adhesive with fine notching of the S-891 Trowel (S-543 must be back rolled). Apply Flip as recommend per Flip Instructions. When installing over nonporous substrates such as existing resilient flooring, allow enough open time for adhesive to dry until tacky with no transfer to the finger (dry-to-touch) before placing the material into the adhesive. When installing over porous subfloors such as concrete and wood, allow the adhesive to thicken to a paste-like consistency (set-in-wet) before placing the material into the adhesive. The adhesive should show good transfer to the finger before placement of the floor. Recess scribe seams. Use S-580 Flash Cove Adhesive in flash cove areas.

1. Before installing the material, plan the layout so seams fall at least 6" (15.24 cm) away from underlayment joints, seams in existing resilient flooring and/or saw cuts in concrete. Do not install over expansion joints.
2. Cut pieces from the roll to the specified length, allowing enough material at each end to flash 1-1/2" (31.8 mm) up the wall for fitting.
3. Recommended fitting procedures include freehand knifing, pattern scribing and straight scribing methods.
4. Fit piece #1 and position in the room.
5. Prepare the seam edge by trimming the factory seam edge using an edge trimmer.
6. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
7. Carefully lap the material back halfway to expose the subfloor.
8. Starting at the lap point and working toward the end wall, apply the S-599 Adhesive up to the pencil line using the fine notching of the S-891 Trowel.
9. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over the S-599 Adhesive, which has a firm grab and does not allow repositioning.
10. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller and staying 2" (5.1 cm) away from the seam. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
11. Repeat steps #7 through #10.
12. Cut piece #2, allowing enough material at each end to flash 1-1/2" (31.8 mm) up the wall for fitting.
13. Install pieces as recommended, TM edge to TM edge or TM edge to non-TM edge.
14. Overlap piece #2 onto piece #1 approximately 1/2" (12.7 mm). Prepare the seam edge on the opposite side of the sheet by trimming the factory seam edge using an edge trimmer.
15. Draw a pencil line on the subfloor along the length of the trimmed factory edge.
16. Carefully lap the material back halfway to expose the subfloor.
17. Starting at the lap point and working toward the end wall, apply the S-599 or S-543 Adhesive up to the pencil line using the fine notching of the S-891 Trowel.
18. Allow the recommended open time before placing the material into the adhesive. Use extreme care when positioning the flooring over the S-599 Vinyl Sheet Adhesive, which has a firm grab and does not allow repositioning.
19. Starting at the center and working toward the edges, roll the material in two directions using a 100-lb. roller and staying 2" (5.1 cm) away from the seam. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.

20. Repeat steps #16 through #19 for the remaining half of piece #2.
21. Recess scribe the seam using a recess scribe. When heat welding, seams may be recess scribed slightly open [1/64" (0.4 mm)] to make guiding the router easier. When using S-761 Seam Adhesive, cut the seams net.
22. Before cutting the seam, protect the floor by inserting a piece of scrap material beneath the scribe mark. With the scrap on the same side as the cutting hand, cut the seam holding a straight blade knife straight up and down.
23. When using S-761 Seam Adhesive option, cut seams net.
  - a. Cut the tip of the S-761 Seam Adhesive applicator bottle and apply a continuous 1/8" (3.18 mm) bead of S-761 Seam Adhesive along the seam edge of piece #1.
  - b. Tuck the seam edge into place, forcing the S-761 Seam Adhesive up through the seam.
  - c. Clean adhesive residue from the surface of the flooring using a clean, white cloth dampened with a neutral detergent and water.
  - d. Refer to Chapter 7, Seams, S-761 Seam Adhesive Procedure for more detail.
24. Roll the seam into place using a hand roller and roll again with a 100-lb. roller.
25. Follow the same procedures for the remaining pieces, completing one piece at a time until the job is finished.
26. When heat welding seams, heat weld seams as recommended. Refer to Chapter 7, Seams, Heat Welded Seams for more detail.
27. Do not allow traffic on the flooring for 24 hours after installation. Newly installed flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.