

## Commercial Stair Treads and Rubber Tiles

Product	Gauge	Size	Adhesive	Comment
Rubber Tiles	0.125" (3.18 mm)	18-1/8" x 18-1/8" (46.04 cm x 46.04 cm)	S-240 or S-799	<p><b>Set-in-Wet (all substrates):</b> Approximately 10–20 minutes (do not allow to dry-to-touch)</p> <p><b>Regular Notch:</b> 1/16" (1.6 mm) deep, 1/16" (1.6 mm) wide, 3/32" (2.4 mm) apart. Roll with 150-lb. roller.</p>
Stair Treads	0.130" (3.3 mm)	13" x 48" (33.02 cm x 121.92 cm) or 13" x 72" (33.02 cm x 182.88 cm)	Solvent-Based Contact Adhesive	Follow adhesive manufacturer's recommendations for installation

### Installation:

- Location: All grade levels
- Pattern match: Rubber Tiles — Yes; for best overall result install with the directional arrows laid in the same direction.
- Fitting: Freehand knifing, pattern scribing and straight scribing.

### Suitable Substrates:

All suitable 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 Stair Treads and Rubber Tiles Installation System.

- Concrete (all grade levels)
- Steel, stainless steel, aluminum
- Ceramic tile, terrazzo, marble [minimum 1" (2.5 cm) thickness]
- Approved suspended wood
- Polymeric poured (seamless) floors

### Job Conditions/Preparation:

- 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 80% of the overall area of the original substrate is exposed.

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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.*

- Allow all 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 85° F (29° C) for 48 hours before, during and for 48 hours after completion.
- 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. The performance of the Rubber Tiles, Stair Treads and Adhesives can be adversely affected below the minimum temperature.
- 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.

### **Fitting Rubber Tiles and Stair Treads:**

- 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.
- Avoid pieces smaller than 8" (20.3 cm) in length.
- Fitting should be completed for each piece before applying adhesive.
- Recommended fitting procedures include freehand knifing, pattern scribing and straight scribing.

### **Abutting Different Gauges of Resilient Flooring:**

When installing thinner gauge material next to thicker gauge material, 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 S-235 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 Cement-Based Patch and 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 to be used under the entire installation.

### Adhesive Open Times and Trowel Notchings

Product and Adhesive	Porous Subfloors and Nonporous Subfloors
Armstrong Flooring Rubber Tile with S-240 High Performance Epoxy Adhesive	<p><b>Set-in-Wet:</b> Approximately 10–20 minutes (do not allow to dry-to-touch)</p> <p><b>Regular Notch:</b> 1/16" (1.6 mm) deep, 1/16" (1.6 mm) wide, 3/32" (2.4 mm) apart</p>
Armstrong Flooring Rubber Tile with S-799 High Moisture Adhesive for Linoleum and Rubber Tile	<p><b>Set-in-Wet:</b> No open time (porous substrates)</p> <p><b>Dry-to-Touch:</b> Up to 5 minutes, depending upon conditions (nonporous substrates)</p> <p><b>U Notch:</b> 1/16" (1.6 mm) deep, 1/16" (1.6 mm) wide, 3/32" (2.4 mm) apart</p>
Armstrong Flooring Stair Treads with a Solvent-Based Contact Adhesive	Follow adhesive manufacturer's recommendations for installation

### Rubber Tile Procedure:

1. Before installing the material, plan the layout so seams fall at least 6" (15.24 cm) away from underlayment joints and/or saw cuts in concrete. Do not install over expansion joints.
2. Lighting conditions must be bright enough to observe color consistency, registration, thickness differences and jointing quality. Permanent lighting is essential.
3. Line off entire area to be installed, remembering tile size is 18-1/8" (46 cm) x 18-1/8" (46 cm).
4. Keep border tile size 1/2 the tile size or more whenever possible. Fit tile tightly at walls to help prevent tile shifting and adhesive oozing during bonding.
5. Carefully line up tile on the chalk line and install tile dry (no adhesive spread), placing the "Armstrong®" name in the same corner throughout the entire installation. Position the tile point to point.
6. After the first row of tile is installed, continue one row at a time, point to point, until the entire area is dry fit.
7. Align discs carefully.
8. Do not pressure fit the tile joints. A very small amount of expansion may occur with use.
9. When tile has been dry fit, check entire installation for shade and manufacturing defects, including jointing and thickness. Replace any off shade, damaged or defective tile.
10. After entire area has been dry fit, remove the last two rows of tile.
11. Mix the entire contents of the S-240 High Performance Epoxy Adhesive, Part A and Part B, with a stirring motion while at the same time lifting from the bottom. Mix thoroughly for 3 to 5 minutes to a uniform color. Do not over mix. Never mix S-240 Epoxy Adhesive on the subfloor surface.
12. Immediately pour the entire unit of mixed adhesive onto the substrate. Do not leave mixed adhesive in containers, as it shortens pot life and working time and may generate excessive heat. Maximum pot life of S-240 High Performance Epoxy Adhesive is approximately 15 minutes, depending on temperature and humidity.
13. Apply the S-240 High Performance Epoxy Adhesive using the regular notching of the S-891 Trowel. See Chapter 5, Adhesives, Trowel Notchings, Seam Treatments and Grout.

## Installation Guide for Resilient Flooring

14. Using the chalk line as a guide, place the rubber tiles that were removed into the adhesive, working off the dry-fit tile and not kneeling on the installed tile. Use a kneeling board if you cannot avoid kneeling on installed tile.
15. Roll tile diagonally and slowly in both directions with a 150-lb. roller. Roll again in 1 hour.
16. Roll any loose corners or edges of tile with a hand roller. If necessary, re-roll the entire installation with a 150-lb. roller.
17. Continue installing the remaining tile following steps #10 through #16.
18. Do not allow traffic for 24 hours after installation and for a longer period of time if room temperature is below 72° F (22° C).
19. Construction foot traffic is permissible only after plywood is placed over the rubber tile 5 hours after the second rolling.
20. Rolling loads are not recommended for at least 72 hours.

### Stair Tread Procedure:

1. Start at the bottom of the stairway, dry fitting the first riser. Leave a gap of 1/32" (0.8 mm) on each side for expansion.
2. Dry fit the first tread, making certain that the tread fits tightly against the nose of the step. Leave a gap of 1/32" (0.8 mm) at each side and at the rear of the tread for expansion.
3. Continue dry fitting the treads and risers until the entire flight of stairs is completed.
4. Rubber Stair Treads are pre-sanded on the back to ensure good adhesion. If you detect a void in sanding on the back of the tread or riser, roughen it with coarse sandpaper or a wire brush. When bonding the nosing of a tread to the face of a riser, roughen the riser at the overlapped area with coarse sandpaper to ensure a good bond.
5. Remove the dry-fit lower 6 or 7 Stair Treads and Risers.
6. Clean off the back of the Stair Tread using a clean, white cloth dampened with Denatured Alcohol. This will remove any mold release that may be on the back of the tread.
7. Carefully follow warnings on container of the Solvent-Based Contact Adhesive. Follow adhesive manufacturer's recommendations for the installation of Rubber Stair Treads.
8. Set the bottom Stair Tread in place, beginning at the nosing. Push back as firmly and as tightly as possible while holding up the rear portion of the tread. After the nosing is completely fit into place, push the rest of the tread down firmly onto the step. Roll with a hand roller.
9. Continue removing dry-fit Stair Treads, applying solvent-based contact adhesive, setting the treads into the solvent-based contact adhesive and risers (using S-725 Adhesive) in place and rolling. Work from the bottom riser and tread combination to the top until the entire flight of stairs is complete.
10. Pedestrian and construction traffic is not recommended for at least 12 hours after installation.