Armstrong® FLOORING

Inspiring Great Spaces•

Vinyl Composition Tile (VCT) Installation System

Product Information

Product Information

Product	Gauge	Size	Adhesive/Full Spread	Adhesive/ Tile-On
Vinyl No-Wax (Dry Back)	0.045" (1.1 mm)	Feature Strips- 1" (2.5 cm), 2" (5.0 cm) or 6"x24" (15.2 cm x 61 cm)	S-515, S-525, S-700, **Flip** or S-750	S-515, S-525 , **Flip** or S-750
Urethane No-Wax (Dry Back)	0.080" (2.0 mm)	all others 12"x 12" (30.5 cm x 30.5 cm)		
Imperial Texture	0.094" (2.4 mm)			
Stonetex ChromaSpin Companion Square Feature Tile/Strips Imperial Texture Imperial Texture with Diamond 10 Coating Crown Texture MultiColor MultiColor with Diamond 10 Coating	0.125" (3.2 mm)			
Raffia Raffia Stream with Diamond 10 Coating	0.125" (3.2 mm)	12"x24" (30.5 cm x 30.5 cm)		
Safety Zone	0.125" (3.2 mm)	12"x 12" (30.5 cm x 30.5)	S-515, S-525, S-700, S-750, **Flip** or S-240	

General Information

General Information

Installation:
Location: All grade levels

Precautions

Precautions

- S-240 Adhesive is recommended for SAFETY ZONE in areas that may be exposed to frequent surface moisture and/or cooler temperatures.
- S-240 Adhesive may also be used to install the first 3 to 5 rows of SAFETY ZONE when used in areas that will be affected by surface moisture and/or cooler temperatures.
- Tiles are to be heated from the back only, never the face.
- Do not wash tile for at least five days after installation. This will allow the tile to become well seated in the adhesive and prevent excess moisture and cleaning agents from interfering with the adhesive bond.
- Products installed using the Tile-On System may have less resistance to indentation. We strongly recommend the use of floor protectors.

Tools

Tools

No additional information for this field.

SubFloor & Substrates

Subfloors & Substrates

All substrates listed below must be properly prepared and meet the requirements discussed in the Subfloors and Underlayments category on this website. There may be certain exceptions and special conditions for these substrates to be suitable for the Vinyl Composition Tile Installation System.

Full Spread:

- Concrete
- Approved Suspended Wood
- Steel, Stainless Steel, Aluminum, Lead, Copper, Brass, Bronze
- Ceramic Tile, Terrazzo, Marble
- Polymeric Poured (seamless) Floors

Tile-On:

- Existing Resilient Sheet Floors
- Vinyl Composition, Vinyl Asbestos, Asphalt, Rubber and Vinyl Tile-On Grade or Suspended Only.

Jobsite Prep

Jobsite 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.
- When using S-240, remove any existing adhesive residue* so that 80% of the overall area of the original substrate is exposed. If these requirements are not followed, curled and/or loose tile could result. For Tile-On, remove wax or other finishes with a commercially available liquid wax stripper. Replace or repair indented or otherwise damaged areas.
- 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. **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 tests (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 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.

Some previously manufactured asphaltic "cutback" adhesives contained asbestos. For removal instructions, refer to the Resilient Floor Covering Institute's publication Recommended Work Practices for Removal of Resilient Floor Coverings.

Adhesive Open Time

Adhesive Open Time

Adhesive	Open Time	Working Time
S-515	Approximately 30 minutes or more	24 hours
S-525	Approximately 20 minutes or more	24 hours
S-700	Approximately 30 minutes or more	18 hours
S-750	Approximately 30 minutes or more	6 hours
S-240	Minimum 20 minutes	1 hour
Flip	Until dry-to-touch: approximately 30 minutes or more	4 hours

Note: All adhesives except S-240 should be dry to the touch before installing tile. The amount of open time will vary according to job conditions, temperature, humidity, air flow, and type of substrate. All adhesives are applied with fine notching [1/32" (0.8 mm) deep, 1/16" (1.6 mm) wide, 5/64" (2 mm) apart].

Layout & Fitting

Layout & Fitting

See Layout and Fitting for room layout.

Before installing the material, plan the layout so tile joints fall at least 6" (15.2 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 joints are a minimum of 6" (15.2 cm) away from the original seams. When installing over tile floors, joints should fall in the center of the tile.

When installing 12"x12" (30.5 cm × 30.5 cm) tiles avoid having border pieces less than 6" (15.2 cm) wide.

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 S-235 Adhesive. Use the fine notching of the Armstrong S-891 Trowel over nonporous substrates such as existing resilient flooring, and use the regular notching of the Armstrong S-891 Trowel over porous subfloors such as wood and concrete. Use Armstrong or S-184 Fast Setting Cement-Based Patch and Skim Coat, or S-194 Patch Underlayment & 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.

Seam / Grout

Seams/Grout

No additional information for this field.

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Installation Methods

Procedure:
See Adhesives, Trowel Notchings and Seam Treatments.

When using tile from two or more cartons, check to be sure all pattern and lot numbers are the

same to ensure proper color match. On larger installations, open several cartons and mix them as they are installed to help blend any slight shade differences from one carton to the next.

Tile products with directional arrows on the back should be installed with the arrows all pointing in the same direction.

Tile installed using S-515, S-525, S-700 or S-750:

1. Line off entire area to be installed.
2. Apply the adhesive over the area not covering the chalk lines and using the fine notching of the S-891 Trowel. You may prefer to spread and install one quarter of the room at a time.
3. Allow the adhesive to set until dry-to-touch (except S-240) following the recommended open time. To test, press your thumb lightly on the surface of the adhesive in several places. If the surface feels slightly tacky as your thumb is drawn away and does not stick to your thumb, the adhesive is ready for the installation.
4. Install the tile along the chalk lines, laying the field area first and then fitting in the border tile.
5. Roll Vinyl Composition Tile with Diamond 10 Technology, Residential Tile and SAFETY ZONE in both directions within the adhesive working time using a 100-lb. roller.
6. Clean adhesive from the surface of the tile using a clean white cloth dampened with a neutral detergent and water.
7. Tile should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

Armstrong Flip Spray Adhesive:

1. A clean substrate is extremely important with the use of Flip Spray Adhesive! Thoroughly sweep and vacuum the substrate first. Damp mop to remove any remaining dust or debris. Extra attention to substrate preparation is essential for a successful installation. Failure to properly clean the substrate may result in telegraphing of debris.
2. Shake the can well before each use. Point can downwards, press the side of the nozzle tip as you slowly walk back and forth overlapping the spray pattern for an even spray coverage. Do not use a sweeping motion as this may cause uneven coverage. Clean up any larger drops that may occur. Refer to the provided spray patterns for proper application. The sprat patterns for tile and sheet are different. Over application, especially for sheet vinyl may cause adhesive telegraphing.
3. Bond testing prior to the installation will help identify the appropriate application rate, open and working time, and any potential bonding problems to the substrate or flooring. To determine the accurate coverage rate, measure and chalk line the substrate into grids (using the appropriate square feet of area for the adhesive application) and spray the entire can of adhesive onto each measured grid area.
4. Allow the adhesive to dry completely with no transfer to fingers when lightly touched. Open time will vary depending on the adhesive coverage, substrate porosity and the ambient conditions.
5. Working time for the adhesive should not exceed 4 hours.
6. Install the flooring as per the Armstrong recommendations for that particular material.
7. Roll the floor immediately after the installation is complete with a 100 lbs. roller. Sheet flooring seams may be heat welded immediately after installation. Normal traffic may be allowed as soon as the installation, finishing and clean-up are complete. Wait 24-hours for heavy traffic or rolling loads.

Special Situations

Special Situations   **SAFETY ZONE in Specialty Areas:**

1. Line off entire area to be installed (Fig. 1).
2. Move chalk lines to one corner or end of the area farthest from the doorway. These lines should be 2' or 3' from the wall depending on your reach (Fig. 2).
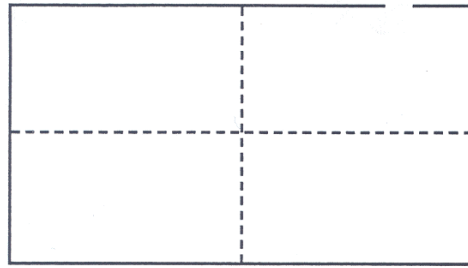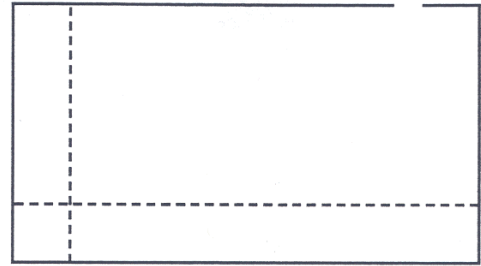
Fig. 1

Fig. 2

3. Mix entire contents of Part A and Part B together with a stirring motion while at the same time lifting from the bottom. Mix S-240 thoroughly for 3 to 5 minutes to a uniform color. **Do not over mix.** Never mix S-240 Adhesive on the subfloor surface.

4. **Immediately pour the entire unit of mixed adhesive onto the subfloor. Do not leave mixed adhesive in cans because it shortens pot life and working time, and may generate excessive heat.** Maximum pot life of the S-240 Adhesive is approximately 10 minutes depending on temperature and atmospheric conditions.

5. Apply S-240 Adhesive for only two or three rows of tile. Working time of S-240 is approximately 1 hour.

6. Tile may be placed into the adhesive immediately but allowing a 15-20 minutes open time and fitting border tile tightly will reduce tile shifting and adhesive oozing. Do not allow the adhesive to dry completely.

7. Install tile with the arrows on the back of the tile pointing in the same direction.

8. Roll tile in both directions within 1 hour of spreading S-240 Adhesive using a 100 lb. roller. Re-roll one hour later in both directions. Remove adhesive residue from the surface of all the tile immediately using a clean, white cloth dampened with neutral detergent and water. Dried S-240 Adhesive cannot be removed.

9. Do not work on newly adhered tile except to roll tile. Use a kneeling board if necessary.

10. Continue Steps 4 through 9 until entire area is completed.

11. Do not allow traffic on tile for 24 hours after installation.

12. Flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

Finishing the Job

Finishing the Job   No additional information for this field.

Repairs

Repairs   No additional information for this field.