

# Vinyl Composition Tile

## Installation System

| Product                                                                                                     | Gauge              | Size                                                                                                                                  | Adhesive/<br>Full Spread                   | Adhesive/<br>Tile-On      |
|-------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------|
| Vinyl No-Wax<br>(Dry Back)                                                                                  | 0.045"<br>(1.1 mm) | Feature Strips:<br>1" (2.5 cm),<br>2" (5.0 cm) or<br>6" x 24"<br>(15.2 cm x 61 cm)<br><br>all others 12" x 12"<br>(30.5 cm x 30.5 cm) | S-515, S-525,<br>S-700, or S-750           | S-515, S-525, or<br>S-750 |
| Urethane No-Wax<br>(Dry Back)                                                                               | 0.080"<br>(2.0 mm) |                                                                                                                                       |                                            |                           |
| IMPERIAL TEXTURE                                                                                            | 0.094"<br>(2.4 mm) |                                                                                                                                       |                                            |                           |
| STONETEX<br>ChromaSpin<br>COMPANION SQUARE<br>Feature Tile/Strips<br>IMPERIAL TEXTURE<br>RAVE<br>MULTICOLOR | 0.125"<br>(3.2 mm) |                                                                                                                                       |                                            |                           |
| ARTEFFECTS                                                                                                  | 0.125"<br>(3.2 mm) |                                                                                                                                       |                                            |                           |
| RAFFIA                                                                                                      | 0.125"<br>(3.2 mm) | 12" x 24"<br>(30.5 cm x 61 cm)                                                                                                        | S-515, S-525,<br>S-700, S-750, or<br>S-240 |                           |
| SAFETY ZONE                                                                                                 | 0.125"<br>(3.2 mm) | 12" x 12"<br>(30.5 cm x 30.5 cm)                                                                                                      |                                            |                           |

### Installation:

Location: All grade levels

### Suitable Substrates:

All substrates listed below must be properly prepared and meet the requirements discussed in Chapter III, Subfloors and Underlayments. 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

## 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.
- Substrates must be dry, clean, smooth, and free from paint, varnish, wax, oils, solvents and other foreign matter. In renovation or remodel work, remove any existing adhesive residue\* so that no ridges or puddles are evident and a thin, smooth film remains.
- When using S-240 Epoxy Adhesive, 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 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 III, 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:

- S-240 Epoxy Adhesive is recommended for SAFETY ZONE in areas that may be exposed to frequent surface moisture and/or cooler temperatures.
- S-240 Epoxy 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.

---

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

- Do not wash tile for at least 4 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 Armstrong Floor Protectors.

**Fitting:**

See Chapter VI, 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" x 12" (30.5 cm x 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 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**

| 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 hours      |

**NOTE:** All adhesives except S-240 Epoxy Adhesive should be dry-to-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].

**Procedure:**

See Chapter V, Adhesives, Seam Treatments and Grout.

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 all 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.

• **SAFETY ZONE in Specialty Areas:**

1. Line off entire area to be installed (Fig. 4).
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. 5).

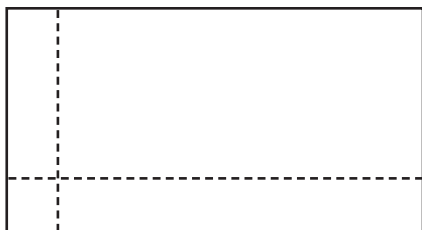


Fig. 4

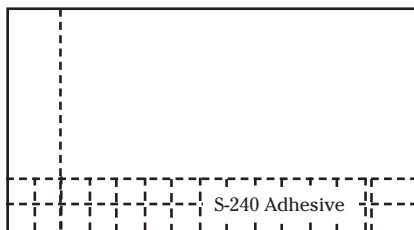


Fig. 5

3. Mix the entire contents of Part A and Part B together 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.
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 Epoxy Adhesive is approximately 10 minutes depending on temperature and atmospheric conditions.

5. Apply S-240 Epoxy Adhesive for only 2 or 3 rows of tile. Working time of S-240 Epoxy Adhesive is approximately 1 hour.
6. Tile may be placed into the adhesive immediately, but allowing 15 to 20 minutes of 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 Epoxy Adhesive using a 100-lb. roller. Re-roll 1 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 Epoxy Adhesive cannot be removed.
9. Do not work on newly adhered tile except to roll tile. Use a kneeling board if necessary.
10. Repeat Steps 4 through 9 until the 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.