Bio-Flooring with Diamond 10® Technology Coating

Product	Gauge	Size	Subfloor Adhesive Recommendations		
			Wood, Concrete, Ceramic, Terrazzo or Marble	Metal	Existing Resilient Flooring
Migrations™ BBT™ with Diamond 10 Technology coating	0.125" (3.18 mm)	12" x 12" (30.5 cm x 30.5 cm)	S-525 or S-700	S-700	S-525 Tile-On System
Striations BBT™ with Diamond 10 Technology coating	0.125" (3.18 mm)	12" x 24" (30.5 cm x 61 cm)			

Installation:

Location: All grade levels

Suitable Substrates:

All substrates listed below must be properly prepared and meet the requirements discussed in Chapter 3, Subfloors and Underlayments. There may be certain exceptions and special conditions for these substrates to be suitable for BioBased Tile Installation System. Review substrate recommendations for the adhesives.

Full Spread:

- Concrete (on all grade levels)
- Polymeric poured (seamless) floors
- Steel, stainless steel, aluminum, lead, copper, brass, bronze
- Ceramic tile, terrazzo, marble
- Approved suspended wood underlayments

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.
- 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.
- 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.
- 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:

- Tiles are to be heated from the back only, never the face.
- 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 recommended the use of Armstrong® Floor Protectors.
- Install one quarter of the room at a time for all 12" x 12" (30.5 cm x 30.5 cm) tiles.

Fitting:

- See Chapter 6, Layout and Fitting for room layout. Before installing the material, plan the layout so tile joints 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 joints are a minimum of 6" (15.24 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" (15.24 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 Flooring S-891 Trowel over nonporous substrates such as existing resilient flooring, and use the regular notching of the Armstrong Flooring S-891 Trowel over porous subfloors such as wood and concrete. Use Armstrong Flooring 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-525	Approximately 20 minutes or more	24 hours
S-700	Approximately 30 minutes or more	18 hours

NOTE: All adhesives 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 5, Adhesives, Trowel Notchings, 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.

Procedure:

1. Line off entire area to be installed.
2. Apply the adhesive over the area, being careful not to cover 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 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. Clean adhesive from the surface of the tile following removal methods on the adhesive label.
6. Tile should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.

NOTE: When installing tile be sure that all tile is firmly seated into the adhesive. Rolling with a 100-lb. roller will achieve the same result and is highly recommended.