General Information:
Alterna Groutable Tile can be installed by two installation methods. It can be installed with a standard butt fit; or, Alterna can be spaced and grouted with Armstrong S-693 premixed Sanded Acrylic Grout. Both methods require the use of Armstrong S-288 Flooring Adhesive.

When doing a grouted installation, tiles should be laid with a grout joint spacing of 1/16” to 1/4” using tile spacers. Because of the rounded edges, the appearance of the finished grout joint will be approximately 1/16” wider than the actual tile spacing.

Always store the product on a flat surface. Temperature control and subfloor flatness are important in the prevention of raised or curled edges. Maintain the temperature of the room, subfloor, tile and adhesive at a minimum of 65°F and a maximum of 85°F for 48 hours prior to installation, during installation, and 48 hours after installation.

CAUTION: Do not use high temperature heat when cutting or making the tile conform to irregularities in the substrate. Alterna can warp or curl after significant heating from sources such as hot plates and heat guns. If you must warm the tile, always heat from the back and limit the temperature of the tile to warm conditions.

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. For best appearance, the directional arrows on the back of Alterna must be randomized when laying the tile (rather than aligned in one direction or in a forced turn block layout).

Suitable Substrates:
- Concrete (on all grade levels)
- Approved Suspended Wood Underlayments
- Most Single-layer, Fully Adhered
- Existing Resilient Floors
- Ceramic Tile
- Terrazzo
- Marble
- Polymeric Poured (seamless) Floors

Do not install over:
- Particleboard
- Waferboard
- OSB or single-layer Sturd-I-Floor panels
- Existing Resilient Tile Floors that are Below Grade

Job Conditions/Preparation:
All substrates must be flat. Variations in flatness must not exceed 3/16” in 10’. Because of Alterna’s size, stiffness, and the grouted installation method, suspended wood subfloors and underlayments must have a total thickness of 1” and a minimum 18” well-ventilated air space below. Joist spacing should be on 16” centers to minimize subfloor deflection.
- Concrete subfloor water vapor emission levels must not exceed 5 lbs./1000 sq.ft./24 hrs as determined by calcium chloride tests.
- Radiant heated substrates must not exceed a maximum surface temperature of 85°F (29°C).
- When going over single-layer existing resilient flooring, use S-199 One-Part Embossing Leveler or S-194 Patch, Underlayment & Embossing leveler/S-195 Underlayment Additive to fill and smooth any embossing in the old floor.

Instructions:
Use Armstrong S-288 Flooring Adhesive to install Alterna Tile. S-288 is applied with the fine notching of the Armstrong S-891 trowel. (Notching is 1/32” deep, 1/16” wide and 5/64” apart). The S-288 adhesive must be allowed enough open time until it becomes “dry-to-touch” before installing the tile. After the Alterna is installed, remove all tile spacers and immediately roll the entire floor with a 100-lb. roller. Roll the floor diagonally across the tile joints in both directions. Use a hand roller in confined areas where the large floor roller will not reach, such as under toe kicks.
**Grouting:** Grouting may be done immediately; or, it can be completed the following day, with no problem. Use Armstrong S-693 Premixed Sanded Acrylic Grout. Traditional cement grouts are not recommended with Alterna tile. Use a “hard” epoxy grout float to apply the grout. Do not spread the grout over the entire surface of the tile as is customary with some ceramic tiles. Rather, try to apply the grout and pack it down only in the immediate area of the open joints to minimize cleanup.

Then, hold the float almost vertical to the surface and strike off the excess grout, pulling the float diagonally across the joints.

Do not allow the grout to dry hard on the face of the flooring before beginning the cleanup procedure. It is best to use two buckets of clear, cool water with sponges during the first cleanup. Firm, square-edged cellulose sponges typically work best for cleaning grout residue from the tile without pulling excessive grout from the joints. Use the first bucket and sponge to loosen the grout on the face of the tile and pick up most of the residue. Use the second bucket and sponge for final removal of the residue and for smoothing the joints. Always hold the sponge flat and wipe diagonally across the joints. Do not allow the rinse water to accumulate in the adjacent ungrouted joints.

**NOTE:** If grout sponges alone are not sufficient to clean the face of the tile, a white 3M pad with light pressure may be used. Do not overwork the grout during the cleanup or it will result in shallow joints. It is normal to have a slight grout haze remaining after the initial cleanup. It will be removed in the final cleanup after the grout joint has completely dried. Traffic should be kept off the installation until the grout has completely dried, usually a minimum of 24 hours. Joints that are wider may take longer to dry than narrow joints of 1/16” to 1/8”.

After the grout joints have dried and hardened, a very light application of properly diluted Armstrong Once ’n Done Resilient & Ceramic Floor Cleaner and a white 3M pad may be used to remove the slight haze of grout residue that remains. Again, two buckets of clear, cool water should be used. Pick up residue with a clean damp sponge. Use the second bucket and sponge for a final rinse and cleanup. Buff dry with a soft cloth.

The installation can support light traffic as soon as the grout has hardened; however, the floor should not be exposed to heavy or rolling load traffic for an additional 72 hours after the installation.

**Precautions:**
- Do not use solvents or grout haze removers.
- Grout sealers are not recommended for Armstrong Premixed Sanded Acrylic Grout.
- Do not wash or scrub the new Alterna flooring for at least 5 days after the installation. This will prevent excess moisture and cleaning agents from interfering with the adhesive bond and hardening of the grout.
- Do not use Armstrong New Beginning or other floor strippers for cleaning the grout or maintaining Alterna as they are too harsh and will degrade premixed acrylic grout

*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."
Grouting Tip Sheet

Alterna FLEXIBLE GROUT IS COMPLETELY DIFFERENT than grouting with a standard cement based grout. PLEASE READ THE FOLLOWING INFORMATION THOROUGHLY

DO NOT add any water, liquid or other material to the Flexible Grout!

Stir any liquid on top into the grout thoroughly using a margin trowel.

Do not spread the grout over the entire surface of the tile!

- Before grouting, dampen the grout sponge in a pail of clean water and thoroughly wring out.
- Use the dampened sponge and lightly wipe the tile surface in an area no larger than 5-10 square feet.
- **Apply the Flexible Grout to the tile joints ONLY!** Pack the Grout Joint!
- While Packing the Joint, work at a 45% angle to the grout joint which allows for the maximum amount of material to get packed inside the joint.
- Grout and clean 6 to 9 tiles at a time
- **Do not** allow the Flexible Grout to dry on the face of the Tile
- It is best to use two buckets of clear, cool water with sponges during the first cleanup.
- Firm, square-edged cellulose sponges typically work best for cleaning grout residue
- **Rinse clean sponge in water and wring out until damp.**
- Use 1st bucket & sponge to loosen grout on face of the tile and pick up most of the residue.
- Use the 2nd bucket and sponge for final removal of the residue and for smoothing the joints.
- **Hold the sponge flat and wipe diagonally across the joints.**
- Rinse sponge after every pass, using each side of sponge only once between rinsing.
- **Change rinse water every 30 feet!**
**Room Layout**

Start in one corner of the room. Measure the length of the installation in inches: ________ #1

Divide length of room measured in inches by 16 and round up to nearest whole number: ________ #2

This is how many Alterna Tiles required for the length of the room.

Now, measure the widest part of the room in inches: ________ #3

Divide length of room measured in inches by 16 and round up to nearest whole number: ________ #4

This is how many Alterna Tiles required for the width of the room.

Multiply the whole number listed under #2 by the whole number listed under #4: ________ #5

This is how many Alterna Tiles required for the entire installation of the room.

Divide Line #5 by 14, for number of cartons: ________ #6

Multiply the number listed under #6 by 1.1 for waste factor and round up to next whole number: ________ #7

Line #7 is how many cartons of Alterna Tiles needed for the installation: 

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**S-288 Adhesive Calculator**

Multiply Line #1 and Line #3 together, and then divide this number by 144. ________ #8

Divide Line #8 by 250 and round up to nearest whole number: ________ #9

Line #9 is how many gallons of S-288 Adhesive required for the installation.

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**S-693 Premixed Acrylic Grout Calculator**

Select the size grout spacing desired:  
1/16” wide – 375 square feet per gallon  
1/8” wide – 325 square feet per gallon  
3/16” wide – 275 square feet per gallon  
1/4” wide – 225 square feet per gallon

List the number of cartons needed for the installation (Line #7) ________ #A

Multiply Line #A by 17: ________ #B

Divide Line #B, by the number listed by the desired grout spacing (example 450, 325, 275,225): ________ #C

Line #C is how many gallons of S-693 Grout are required for the installation.

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**Armstrong Alterna S-693 Grout**

<table>
<thead>
<tr>
<th>Coverage</th>
<th>1/16&quot; Joint</th>
<th>1/8&quot; Joint</th>
<th>3/16&quot; Joint</th>
<th>1/4&quot; Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot; x 16&quot; - Gallon</td>
<td>450 sq/ft</td>
<td>235 sq/ft</td>
<td>275 sq/ft</td>
<td>225 sq/ft</td>
</tr>
<tr>
<td>16&quot; x 16&quot; - Quart</td>
<td>112 sq/ft</td>
<td>81 sq/ft</td>
<td>68 sq/ft</td>
<td>56 sq/ft</td>
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<tr>
<td>12&quot; x 12&quot; - Gallon</td>
<td>338 sq/ft</td>
<td>244 sq/ft</td>
<td>206 sq/ft</td>
<td>169 sq/ft</td>
</tr>
<tr>
<td>12&quot; x 12&quot; - Quart</td>
<td>84 sq/ft</td>
<td>61 sq/ft</td>
<td>52 sq/ft</td>
<td>42 sq/ft</td>
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</tbody>
</table>
**SPIRAL**

Tile Needed: 16"x16"-80%
8"x8"-20%

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**Checkered Square**

Tile Needed: 16"x16"-50%
8"x8"-50%

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**MODIFIED SPIRAL**

Tile Needed: 16"x16"-76%
8"x8"-24%

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**MULTI PINWHEEL**

Tile Needed: 16"x16"-94%
8"x8"-6%

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**Tile Needed: 16"x16"-85%**
12"x12"-16%