

# ALTERNA ENGINEERED Tiles & Plank

## Installation System

Product	Gauge	Size	Adhesive	Comment
ALTERNA ALTERNA RESERVE ALTERNA PLANK	0.160" (4.1 mm)	8"x8" (20.3 cm x 20.3 cm) 8"x16"(20.3 cm x 40.6 cm) 12"x12"(30.5 cm x 30.5 cm) 12"x24"(30.5 cm x 61 cm) 16"x16"(40.6 cm x40.6 cm) 6"x36" (15.2 cm x 91.4 cm)	S-288	For grouted installation use Armstrong S-693 FlexStrong™ Grout Premixed Sanded Acrylic Grout

### Installation:

Location: All grade levels

Method: Tight fit or groutable

**\*Multiple tile size installations/Basketweave single tile installation require a 1/8" grout line for installation. Non-grouted installations are not recommended for multiple tile size installations.**

**WARNING: EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT OR ASPHALTIC "CUT-BACK" ADHESIVES.**

These existing in- place products may contain asbestos fibers and/or crystalline silica refer to the caution section below.

Avoid creating dust, inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the existing in-place product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern removal and disposal of material. See current edition of the Resilient Floor Covering Institute publications recommended work practices for removal of resilient floor coverings for instructions on removing all resilient floor covering structures. Contact your retailer or Armstrong Flooring Inc. 1 800 233 3823 for questions.

The floor covering in this package does NOT contain asbestos.

### General Information:

ALTERNA tile can be installed by two installation methods. It can be installed with a standard butt fit as in traditional resilient tile installations; or, ALTERNA can be spaced and grouted with Armstrong S-693 FlexStrong Grout, Premixed Sanded Acrylic Grout. Both methods require the use of Armstrong S-288 Flooring Adhesive.

For a grouted installation, the tiles should be laid with a grout joint spacing of 1/16" (1.6 mm) to 1/4" (6.4 mm) utilizing tile spacers designed for this purpose. Because of the rounded edges, the appearance of the finished grout joint will be approximately 1/16" (1.6 mm) wider than the actual tile spacing.

Due to ALTERNA's large format and increased thickness, extra care is required in handling and storage to keep the product from becoming damaged or distorted. Always store the product on a flat surface. Temperature control and subfloor flatness are important in the prevention of raised or curled edges, and performance of the grouted joints. Maintain the temperature of the room, subfloor, tile and adhesive at a minimum of 65°F (18°C) and a maximum of 85°F (29°C) for 48 hours prior to installation, during installation, and for 48 hours after installation. Maintain a minimum room temperature of 55°F (13°C) thereafter.

**CAUTION: Do not use high temperature heat sources to aid in cutting or making the tile conform to irregularities in the substrate. Multi-layered engineered tile structures such as ALTERNA can warp or curl after significant heating from sources such as hot plates and heat guns. Condition the room and all flooring materials to the temperature guidelines stated above. If you must warm the tile, always heat from the back and limit the temperature of the tile to warm conditions- less than 110°F (43°C).**

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 turnblock layout).**

### **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 ALTERNA Flooring installation. All subfloors must be minimum 1" in thickness.

- Concrete (on all grade levels)
- Approved Suspended Wood Underlayments
- Most Single-layer, Fully Adhered, Existing Resilient Floors (on approved subfloors and underlayments)
- Ceramic Tile, Terrazzo, Marble
- Properly mixed and applied powder underlayments and embossing levelers
- Polymeric Poured (seamless) Floors
- S-1841 Quiet Comfort underlayment
- **Can be installed over the following subfloors when using S-1841 Quiet Comfort Underlayment**
- Particleboard, waferboard, OSB or single-layer Sturd-I-Floor panels
- Existing Resilient Tile Floors that are Below Grade
- Existing cushion-backed vinyl flooring

### **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.
- All substrates must be flat. Variations in flatness must not exceed 1/16" (1.6 mm) in 1' (30.5 cm) or 3/16" (4.8 mm) in

10' (3.05 m). Fill low areas in the substrate with S-194 Patch, Underlayment & Embossing Leveler/S-195 Underlayment Additive.

- Because of ALTERNA's size and stiffness, when using the grouted installation method, suspended wood subfloors and underlayments must have a total thickness of 1" (2.5 cm) and a minimum 18" (45.7 cm) well-ventilated air space below. Joist spacing should be on 16" (40.6 cm) centers to minimize subfloor deflection.
  - In renovation or remodel work, remove any existing adhesive residue\* so that no ridges or puddles are evident and what remains is a thin, smooth film.
  - 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 and the flooring materials and adhesives should be maintained at a minimum of 65°F (18°C) and maximum of 85°F (29°C) for 48 hours prior to installation, during installation and for 48 hours after completion. Maintain a minimum temperature of 55°F (13°C) thereafter.
  - 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).
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Adhesive	Trowel	Porous and Non-Porous
S-288	S-891 Fine notch Trowel 1/32" x 1/16" X 5/64" (0.8mm x 1.6mm x 2mm)	Dry to touch- 30 min. or more

## Layout

Before installing the ALTERNA Tile Installation System, plan the layout so the 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 tile joints are a minimum of 6" (15.2 cm) away from the original seams. When installing over tile floors, avoid having the tile joints in the same area as the joints in the existing flooring.

Taking the most prominent walls in the room into consideration, find the center point in the room. Divide the room into equal quadrants by making two perpendicular lines on the subfloor intersecting at the center point. Starting from the center point, and either by measurements, or by doing a dry layout of the tiles (with proper grout joint spacing), determine the distance between the last full tile and the perimeter walls and cabinets. A balanced layout will result in border tiles being 8" (20.3 cm) or greater for the 16" x 16" (40.6 cm x 40.6 cm) tiles.

If the border pieces are less than 8" (20.3 cm) wide, particularly at the prominent walls, you will need to shift the starting point in the middle of the room 1/2 the dimension of the tile [8" (20.3 cm) for a 16" x 16" (40.6 cm x 40.6

cm) tile] to balance the layout. After you have balanced the room to achieve larger pieces at the borders, make two new perpendicular lines on the subfloor intersecting at the new starting point near the center of the room.

Normally you will apply adhesive to 1/4 or 1/2 of the room area at a time so that you can start the installation where the guidelines intersect.

Begin at the starting point and install the tile along the chalk lines, laying the field area first in step fashion. Complete installation of full tile in all quadrants of the room. Do not slide the tile into place. Press tile firmly into the adhesive.

**NOTE: Tile spacers do a very good job of maintaining tile alignment; however, the installer must also re-check for proper alignment by using measurements or creating additional lines on the subfloor about every 4' (every 3 rows of tile) to ensure straight lines and rows of tile. This is very important on larger installations.**

Next, cut and fit the border tile at the perimeter. Mechanical tile cutters are available for cutting larger format tile. The score and snap method of using a utility knife to score through the wear surface also works well. Be sure to allow for the grout joint and a 1/8" (3.2 mm) gap at perimeter walls when cutting the border pieces.

For irregular cuts, make a pattern out of Kraft paper or cardboard and transfer it to the tile. Score along the markings and snap off small pieces. Ceramic tile nippers or a coping saw are useful in making more intricate cutouts for complicated fittings.

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.

#### **For Alterna Reserve Installation**

- Open several cartons
- Refer to room layout to mark quadrants
- Sort product into groups of similar design and color
- For the best results, dry layout the first quadrant by randomly selecting and placing tiles from each group
- Once desired look is achieved pick up tiles and lay adhesive to quarter of the room
- Repeat in additional quadrants
- Follow installation instructions below

#### **Applying Adhesive/Spacers**

- Apply adhesive to a quarter or half of the room area at one time  
NOTE: adhesive MUST be applied with the recommended trowel notching and the adhesive MUST be DRY TO THE TOUCH before installing the tile. None of the adhesive should transfer to your fingers this will depend on room temperature, humidity and airflow
- Do NOT use fans on adhesive/ substrate to accelerate drying
- Standard room balancing and layout procedures have to be followed prior to installation of tile
- Lay tile spacers 1/16" to 1/4" to allow for grouted installation. Do not use tile spacers if installing without grout.

#### **For Alterna Plank Installation**

- Whenever possible, plan the layout so that the joints in the planks do not fall on top of joints or seams in the existing substrate. The end joints of the planks should be staggered a minimum of 6" apart. Do not install over expansion joints.
- To minimize repeats always work out of three cartons at time.
- Determine which direction the planks will run. Find the center of each of the end walls (the walls perpendicular to the long dimension of the planks) and place a pencil mark on the floor. Connect these points by striking a chalk line down the center of the room. Do a dry layout of planks from the center line to the wall running parallel to the long direction of the planks to determine the width of the last row of planks.

Avoid having border pieces less than 2" (5.1cm) wide for the 4" (10.2cm) wide planks and less than 3" (7.6cm) wide for the 6" (15.2cm) wide planks. If you find the border planks will be less than 1/2 the width of the plank, the center starting line should be shifted a distance equal to 1/2 the plank width. This will "balance" the room and provide for a larger cut piece at the wall. Apply S-288 adhesive to 1/2 of the area at a time so that you can start the installation along the center starting line. Begin laying planks along the center starting line and install row by row including the cut pieces at the perimeter until 1/2 of the installation is complete. Use Tile spacers to maintain proper space between each plank. Stagger the end joints by at least 6 inches (15.2 cm). Apply adhesive to the remaining portion of the room, allow the adhesive to dry-to-touch and complete the installation of planks in similar fashion. After the planks are installed, remove all spacers and immediately roll the entire floor with a 100 lb. roller. Use a hand roller in confined areas where the large floor roller will not reach, such as under toe kicks.

The planks may be walked on immediately; however, the floor should not be exposed to heavy rolling load traffic for 72 hours after the installation. Use pieces of hardboard or underlayment panels to protect the floor when moving heavy furniture and appliances back into the room.

### **Grouting**

- Grouting may be done immediately or the following day
- Use only Armstrong FlexStrong Premixed Sanded Acrylic Grout. Traditional cement Grouts can NOT be used with Armstrong Premium Tile or Plank Flooring, Engineered Tile and Planks.
- Be sure that all tile edges are firmly seated in the adhesive before starting the grouting process
- Follow the application instructions as specified on the grout container, working small sections of the floor at a time
- Use a soft rubber grout float to apply the grout
- Do NOT spread grout over the entire surface of the tile or plank. Apply the grout and pack it down in the immediate area of the open joints
- Hold float in almost vertical position and strike off excess grout, pulling the float diagonally across the joints.
- You will need two five gallon buckets and sponge to loosen the grout on the face of the tile or planks. But the preferred method is to have three buckets of water available. Having clean water will reduce the haze on the face of the tile or plank.
- Use one bucket of water to wipe excess grout off the tiles as you install. This prevents the grout from drying to the tile this can be a tile sponge.
- Hold sponge flat and wipe diagonally across the joints
- Do not allow rinse water to accumulate in ungrouted joints, Be careful not to wipe grout out of the joints
- The other bucket is for the final removal of residue and for smoothing the joints. The second sponge should be damp with no excess water. Use a square-edged cellulose sponge that is just damp move the sponge slowly over the surface to pick up the excess water.
- A dry terry cloth towel may be pulled across the surface of the Tile or Plank as a final cleaning step.
- If sponges are not sufficient to clean the face of the tile use a white 3M pad with light pressure or a terry cloth towel.
- It is normal to have a grout haze remaining after the initial clean up. This will be removed in the final clean up once the grouted joints have completely dried
- Traffic should be kept off the installation until the grout has completely dried minimum of 24 hrs.
- Joints that are wider then 1/16" to 1/8" may take longer to dry
- Replace wall base and trim moldings

### **Clean-Up Once Grout Dries**

- Use one bucket of properly diluted Armstrong Once 'n Done® Resilient & Ceramic Floor Cleaner
- For small areas use Once 'n Done spray bottle
- Use 3M pad to remove grout haze that remains
- Have a second bucket of clear clean water for the final rinse and clean up
- Buff dry with a soft cloth

**Warning**

- Do not wash or scrub the new flooring for at least 5 days after installation
- Do NOT use solvents or grout haze removers
- Do NOT use Armstrong New Beginning® Floor Stripper or other floor strippers to clean the grout or maintain Alternata
- Only use Armstrong Premixed Sanded Acrylic Grout S-693
- Tile may be walked on immediately however, NO heavy rolling traffic for an additional 72 hours after installation
- Use pieces of hardboard or underlayment panels to protect the floor when moving heavy furniture and appliances back into the room
- Do NOT use mats with latex or rubber backing as they can cause permanent discoloration of your floor
- Do NOT use vacuums that use a beater bar or turn beater bar off
- Do NOT use electric brooms with hard plastic bottoms with no padding
- Do NOT use abrasive scrubbing tools
- Do not use detergents abrasive, cleaners or “mop and shine” products

**Helpful Maintenance/Care Tips**

- Use floor protectors such as Armstrong Floor Protectors, under furniture
- Wipe up spills immediately
- Wash your floor regularly with Armstrong Once 'n Done Resilient & Ceramic Floor Cleaner

**Caution**

- Engineered Tile Flooring, like other types of smooth floors, may become slippery when wet
- Allow time for floor to dry after washing
- Immediately wipe up wet areas from spills, foreign substances or wet feet

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