

## Rigid Core Elements Installation System

### Product Information

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Product	Gauge	Size	Adhesive
Rigid Core Elements	0.16" (4mm), 0.2" (5mm)	6"x48"	Rigid Core Elements Locking System
		7"x48"	

**Location:** All grade levels

**Fitting:** All methods

### General Information

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The locking installation system allows the planks to be installed without using adhesives. It is a floating floor installation. The planks should be installed 1/4" away from all vertical surfaces such as walls, cabinets, pipes, etc

When installed in bathrooms, the gap should be filled and sealed with a good quality siliconized or acrylic caulk. The gap will then be covered with molding or wall base. Base cabinets **should not** be installed on top of the planks.

Keys to Successful Locking Installation:

- Most installations will need approximately 10% cutting allowance added to the square footage of the room.
- [Proper conditioning of both the job site](#) and the flooring is necessary. Rigid Core Elements should not be exposed to sudden changes in temperature.
- Store, transport and handle the flooring so as to prevent any distortions. Store cartons flat, never on edge. Distortions will not disappear over time. ensure that the planks are lying flat at time of installation.
- Installation of carpet, metal strips, and other transition moldings should not push fully into the flooring and should allow for some slight movement wherever practical.
- Protect the floor from heavy rolling loads, other trades and replacement and/or movement of appliances by using sheets of plywood or similar.
- Rigid Core Elements should not be exposed to direct sunlight for prolonged periods. It can result in discoloration and excessive temperatures may cause expansion.
- The use of drapes or blinds is recommended during peak sunlight exposure. If expansion, due to sunlight exposure, occurs in a specific area, we recommend adhering the planks/tiles with Armstrong S-288 Adhesive using a fine-notch trowel.

### Precautions

#### Precautions

**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, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER ADHESIVE.**

These existing in-place products may contain asbestos fibers and/or crystalline silica. 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 (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for instructions on removing all resilient floor covering structures or contact your retailer or Armstrong World Industries, Inc. 1 800 233 3823.

**The floor covering or adhesive in this package does NOT contain asbestos.**

## Tools

### Tools

- Tapping block
- Pull Bar
- Hammer
- Saw

## SubFloor & Substrates

### Subfloors & Substrates

#### Suitable Substrates

All substrates listed must be properly prepared and meet certain requirements. There may be other exceptions and special conditions (as noted below) for these substrates to be suitable for the locking installation system.

- Concrete – dry and smooth on all grade levels
- Suspended wood subfloors with [approved wood underlayments](#) – must have minimum of 18" well-ventilated crawl space underneath
- Suspended hardwood flooring that is fully adhered, smooth and square edge without texture
- Single-layer, fully adhered, existing resilient floors – must not be foam-backed or cushionbacked
- Ceramic tile, Terrazzo, Marble
- Polymeric Poured (seamless) Floors
- OSB - 3/4"
- Particleboard 40lb. density or wafer board

For additional information relative to installation and subfloor preparation please refer to the Subfloor and Underlayments section of the Armstrong Guaranteed Installation System manual, F-5061, or the [Subfloors and Underlayments subsection](#) of the Resilient section on [www.floorexpert.com](http://www.floorexpert.com).

#### DO NOT INSTALL OVER

- Existing resilient tile floors that are below grade
- Existing cushion-backed vinyl flooring
- Carpet
- Hardwood flooring that has been installed directly over concrete
- In rooms with sloping floors or floor drains

*\* 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](#).*

## 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.
- All substrates must be structurally sound, dry, clean, flat, and smooth with minimal deflection. Substrates must be free from excessive moisture or alkali. Remove dirt, paint, varnish, wax, oils, solvents, other foreign matter and contaminants that could cause staining or interfere with the bond of the adhesive.
- High spots on the substrate should be leveled and low areas filled with appropriate underlayments.
- Do not use products containing petroleum, solvents or citrus oils to prepare substrates as they can cause staining and expansion of the new flooring.
- In renovation or remodel work, remove any existing adhesive residue so that 100% of the overall area of the original substrate is exposed.
- When installing over an existing resilient floor, use S-194 Patch, Underlayment & Embossing Leveler/S-195 Underlayment Additive to fill and smooth any embossing in the old floor.
- Embossed ceramic tile floors, ceramic and marble grout joints, and irregularities in concrete should be filled and leveled using S-194 Patch, Underlayment & Embossing Leveler mixed with

S-195 Underlayment Additive to fill and smooth any embossing in the old floor.

- The area to receive resilient flooring materials and adhesives should be maintained between 65°F (18°C) and 85°F (29°C) for 48 hours before installation, during installation, and 48 hours after completion. Maintain temperatures between 55°F (13°C) and 85°F (29°C) thereafter.
- For concrete substrates, conduct moisture testing (moisture vapor emission rate {MVER} up to 5lbs./1000ft<sup>2</sup> is acceptable) and/or percent relative humidity (in-situ probe) up to 95% is acceptable and ph between 5 and 9 is acceptable. Bond tests must also be conducted for compatibility with the substrate. Please refer to Subfloors and Underlayments Section found on [www.FloorExpert.com](http://www.FloorExpert.com) for details.
- Radiant heated substrates must not exceed a maximum surface temperature of 85°F (29°C).
- The subfloor panels must have a smooth, sanded face and show no swelling of the edges or surface due to exposure to weather conditions or construction traffic.
- There are numerous products available to use as floors patches, self-leveling underlayments, and trowelable underlayments. They include proprietary blends of compounds such as portland cement, calcium aluminates, and gypsum-based products. These are recommended by their manufacturers for smoothing tough or uneven subfloors, enhancing acoustical and fire characteristics of structures or as substrates to receive floor covering for otherwise unsuitable subfloor conditions. If the subfloor surfaces appears to be dusty then apply S-185 to the surface.

## Adhesive Open Time

### Adhesive Open Time

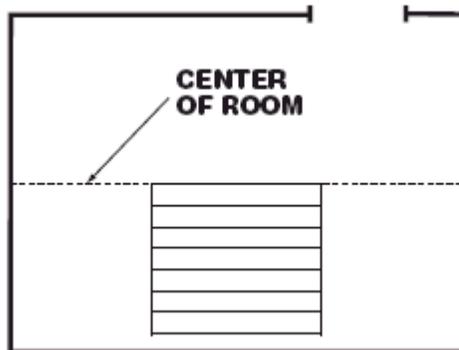
## Layout & Fitting

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Whenever possible, plan the layout so that the joints in the planks do not fall on top of the joints or seam in the existing substrate. The end joints of the planks should be staggered a minimum of 6" apart. Do not install over expansion joints. Avoid installing pieces shorter than 8" (20.32 cm)

Determine which direction the plank 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 the plank 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 (refer to Figure 1)



**Fig. 1 - Dry layout to determine width of border plank**

Avoid having border pieces less than 3" (7.6 cm) wide for the 6" (15.2 cm) 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.

## Seam / Grout

### Seams/Grout

## Installation Methods

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### Installation Procedure

Remove baseboard, quarter-round moldings, wall base, appliances and furniture from room. For best results, door trim should be under-cut to allow flooring to move freely without being pinched. After preparation work, sweep and vacuum the entire work area to remove all dust and debris.

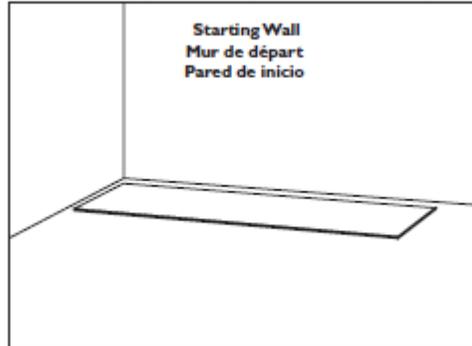
**Note: Planks are easily cut with a tile cutter or by using a straight edge and utility knife. Score the face of the plank several times and snap it. If it doesn't separate, lightly cut through the back on the fold mark.**

### Installation

*Note: The subfloor must be thoroughly free from dust and debris. If the subfloor is dusty this may affect product performance.*

*Note: Stagger end joints by 6". Cut pieces at the end of rows should be 8" or longer.*

Position the first plank so that the grooved edge is facing you. Install the product from left to right in the room. See figure 2 for position of initial plank in the room.



*Fig. 2 – Left corner of starting wall.*

Occasionally, it may be necessary to install backwards. This may be done by sliding the grooves under the tongues and working them from right to left, but this is more difficult.

Install the second plank in the initial row by angling the end tongue into the end groove of the first plank.

Install second and subsequent full pieces in the initial, or first, row by aligning short ends of the planks and locking into place. (see figure 3).



**Fig. 3 - Angle end tongue into end groove on planks in the initial row**

Be careful not to bend the corner of the plank. Be sure to maintain an expansion gap of approximately 1/4" from the wall. Continuing installing the first row until you reach the wall on the right.

Begin the second row of planks with the piece cut from the last piece in the first row. If the piece is shorter than 8" (20.32 cm), cut a new plank in half and use it to begin the second row. Whenever practical, use the piece cut from the preceding row to start the next row. End joints of all planks should be staggered 6" or more.

Install the first plank in the second row (and subsequent rows) by inserting the side tongue into the groove of the adjacent plank in the first row (see figure 4).



**Fig. 4 - Angle long side into prior row.**

Keep this at its natural angle slightly raised off the subfloor. Then angle the short end of the next plank in the row to lock into the previous plank (see Figure 5).



**Fig. 5 - Angle end of next plank**

Then align the plank so the long side tongue is positioned just over the groove lip of the adjacent plank in the prior row. Working from the end joint, with a low angle, insert the long side tongue into the groove of the adjoining plank (see figure 6) until you feel the tongue lock into the groove.



**Fig. 6 - Locking long side with ends already locked**

Continue installing planks across a row until you reach the wall on your right.

After the first 3 rows of planks are installed, they should be checked with a string line to ensure that rows are still running straight. If they are not, it could be that the starting wall has some irregularities that caused bowing in the installation. If so, the starting row of planks may have to be scribed and re-trimmed to account for any unevenness in the wall. This can be done without having to disassemble the beginning rows.

Continued installing planks. Maintain a random appearance by offsetting the end joints by at least 6 inches. Always be certain that the planks are fully engaged. If slight gapping is noticed, place a cut piece of flooring (bridge piece) in the side groove that spans the ends of two adjacent planks within a row. Then tap the plank with a tapping block (see figure 7).



**Fig. 7 - Tap side of plank with tapping block**

Then, with the bridge piece in place, tap the end of the plank with a pull bar or tapping block (see figure 8).



**Fig. 8 - Tap end of plank with pull bar or tapping block**

When fitting in areas such as door casings it may be necessary to use a flat pull bar to engage the lock.

Continue installing remaining rows in similar fashion. For planks, maintain the 6" minimum staggered end joints between rows and for planks maintain 1/4" gap at perimeter and vertical surfaces.

## Special Situations

### Special Situations

#### **Rigid Core Elements Full Spread option:**

The S-288 should be applied over porous or nonporous substrates using a fine notch trowel having notches 1/32" deep x 1/16" wide x 5/64" apart. The adhesive must be allowed to dry-to-touch prior to installing the planks. Installers should be careful when positioning the planks into the S-288 as a strong bond will develop almost immediately and repositioning may be difficult.

Although Rigid Core Elements was developed primarily as a floating installation system, the full spread option can be employed in special situations if requested and agreed upon by the customer and installer. Warranties would remain unchanged when S-288 is used.

## Finishing the Job

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#### **Finishing the Installation**

Replace molding or wall base, allowing slight clearance between the molding and the planks/tiles. Nail the molding to the wall surface, not through the flooring. At doorways and at other areas where Luxe Plank/Tile may meet other flooring surfaces, it is preferable to use a "T" molding or similar to cover the exposed edge but not pinch the planks/tiles. Leave a small gap between the planks/tiles and the adjoining surface.

#### **Proactive Protection for Your Floor**

- When moving appliances or heavy furniture it is always wise to lay a plywood panel on your floor and "walk" the item across it. This protects your floor from scuffing and tears.
- Use floor protectors under furniture to reduce indentation. As a general rule of thumb, the heavier the item, the wider the floor protector needed.
- Place a walk-off mat at outside entrances to reduce the amount of dirt brought into your home. We strongly recommend mats without a latex or rubber backing since these backings can cause permanent

discoloration.

- All Armstrong floor care products have been specifically developed to care for Armstrong floors.

#### **Caring for Your Floor**

- Sweep or vacuum regularly, to remove loose dirt which can scratch your floor. Note: We do not recommend vacuums that have a beater bar since it can visibly damage your flooring surface. Additionally, we do not recommend electric brooms with hard plastic bottoms with no padding as use may result in discoloration and deglossing.
- Wipe up spills as soon as possible. Never use highly abrasive scrubbing tools on any resilient floor.
- Wash your floor regularly with a vinyl floor cleaner such as Armstrong Once 'n Done® Floor Cleaner.
- Do NOT use detergents, abrasive cleaners, or “mop and shine” products. These products may leave a dull film on your floor.
- Over time, if the shine on your floor begins to dull, apply Armstrong SatinKeeper® Resilient Low Gloss Floor Finish to restore the appearance of Luxe Plank/Tile. Do NOT use paste wax or solvent based polishes.
- Vinyl flooring, like other types of smooth floors, can become slippery when wet. Allow time for floor to dry after washing. Immediately wipe up wet areas from spills, foreign substance, or wet feet.

#### **Repairs**

Repairs [Rigid Core Elements Plank Replacement](#)