Rest and Refuge™
Rigid Core Flooring

Suitable for installation on all grade levels

Tips for a successful Installation:

- Most installations will need approximately a 10% cutting allowance added to the square footage of the room.
- Proper conditioning of the job site is necessary. Flooring planks should not be exposed to sudden changes in temperature.
- Store, transport and handle the flooring planks in a manner to prevent any distortions. Distortions will not disappear over time. Store cartons flat, never on edge. Ensure that the flooring planks are lying flat at time of installation.
- Installations 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 movement of appliances by using sheets of plywood or similar.
- Rest & Refuge does not require acclimation unless the installation site conditions are colder than 32°F or higher than 100°F (35°C) for 48 hours before or during installation. Under these conditions a 4-hour acclimation period of the floor covering is recommended.
- Where the room is larger than 20’ (6.1 m) by 30´ (9.14 m) or 500 sq.ft. (46.45 sq.m.) a minimum of 1/2˝ (12.7 mm) expansion zone is required around the perimeter of the room as well as against any fixed objects or Multi-Purpose moldings must be used to compensate for this movement. In areas larger than 52’ by 52’ or 2,700 sq.ft. the use of T-moldings or Multi-Purpose moldings is required.
- Use of T-moldings or Multi-Purpose moldings in doorways may be utilized to manage floor size. ¼” expansion space may be used for floor sizes up to 20’ (6.1 m) by 30´ (9.14 m) or 500 sq.ft. (46.45 sq.m.).

Rest & Refuge features an angle/angle lock system that is installed by floating the planks 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 can then be covered with molding or wall base. Base cabinets should not be installed on top of the planks. Please refer to the Armstrong Flooring Commercial Application Guide for specific installation recommendations in various commercial spaces.

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 Flooring Inc. 1 800 233 3823.

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

Full Bathroom Installations- 100% silicone caulk must be used around the entire perimeter.

Tools

- Tapping Block
- Pull Bar
- Rubber Mallet
- Utility Knife
- Saw (optional)
- Spacers

Subfloors & Substrates

All substrates listed below 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 Floors (seamless)
- OSB-3/4″
- Particleboard 40lb. density or wafer board

For additional information relative to installation and subfloor preparation please refer to the Subfloors and Underlayments section of the Armstrong Guaranteed Installation System manual, F-5061. or the Subfloors and Underlayments subsection.

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

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 contaminates.
- Variations in subfloor flatness should not exceed 3/16˝ in 10´ (4.76 mm in 3.05 m) or 1/8˝ in 6´ (3.17 mm in 1.83 m). Level floors with a suitable cement-based self-leveling underlayment following the manufacturer's recommended guidelines
- Do not use products containing petroleum, solvents or citrus oils to prepare substrates as they can cause staining and expansion of the new flooring.
- For renovation or remodel work, remove any existing adhesive residue so that 100% of the overall area of the original substrate is exposed.
- Embossed existing resilient floors, ceramic tile floors, ceramic and marble grout joints, and irregularities in concrete should be filled and leveled using S-194 Flooring 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 32°F (13°C) and 100°F (38°C) thereafter.
- For concrete substrates, conduct moisture testing (moisture vapor emission rate [MVER]) not to exceed 5 lbs. and/or percent relative humidity 95% (in-situ probe). Bond tests must also be conducted for compatibility with the substrate. Please refer to the Subfloors and Underlayments Section found on 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 edges or surface due to exposure to weather conditions or construction traffic.
- There are numerous products available for use as floor fills, 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 rough 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 surface appears to be dusty then apply S-185 to the surface.

INSTALLATION PREPARATION:

- 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.
- 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. 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 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 (refer to Figure 1).

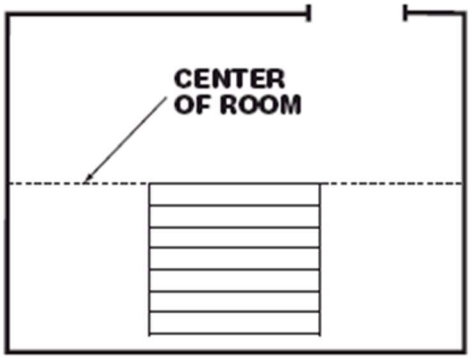

Fig. 1- Dry layout to determine width of border plank.

Avoid having border pieces less than 3″ (7.6 cm) wide. 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.

Installation Methods

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

Note: Stagger end joints by 6″. Cut pieces at the ends of rows should be 8″ long or longer.

Position the first plank so that 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.

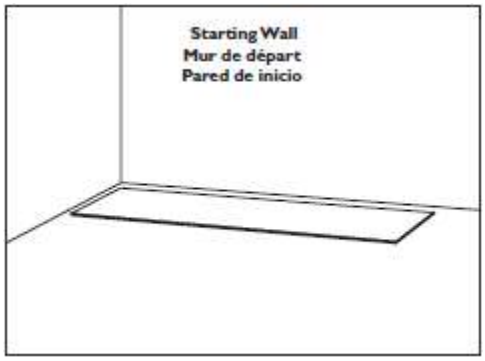

Fig. 2 - Left corner of starting wall.

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

ANGLE/ANGLE LOCK

Install First Row:

1. Inspect each piece prior to installation for damaged planks.
2. To minimize pattern repeats, always pull from at least 3 cartons while installing.
3. Lay first row of boards with tongue side facing the wall.
4. If the starting wall is crooked, trace the contour of the wall on the first row of planks and trim as needed.
5. Use spacers along all sides that butt up against walls to maintain 1/4″ (6.35 mm) to 1/2″ (12.7 mm) expansion zone. Where the room is larger than 20’ (6.1 m) by 30´ (9.14 m) or 500 sq.ft. (46.45 sq.m.) a minimum of 1/2″ (12.7 mm) expansion zone is required around the perimeter of the room as well as against any fixed objects.
6. Lay pieces from left to right. Install second and subsequent full pieces in the first row by aligning short ends of boards and locking into place.

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

7. When measuring the last piece in the row, subtract 1/4″ (6.35 mm) from the end of the board to maintain expansion zone.
8. Cut decorative side up if using a hand saw or decorative side down if using a power saw to minimize chipping. A utility knife may also be used.
9. If the cut-off piece from the first row is 8″ (20.32 mm) or longer, use it to start the second row. If it is less than 8″ (20.32 mm), cut a full board in half and use that.

Install Remaining Rows:

1. Continue laying planks, one row at a time and staggering the end joints.
2. Install the long end of the first board in the second row at an angle to the board in the first row. Keep this board at its natural angle slightly raised off the subfloor. Use a scrap piece of flooring to support the row if needed.
3. Continue installing full boards in the second row by angling the short end of the next board in the row to lock into the previous board. Position the board so that the long side of the board is close to boards in the previous row and overlapping the groove of the boards in the previous row.

Fig. 4 – Angle end of next plank

4. Angle up and push forward until the boards lock together.

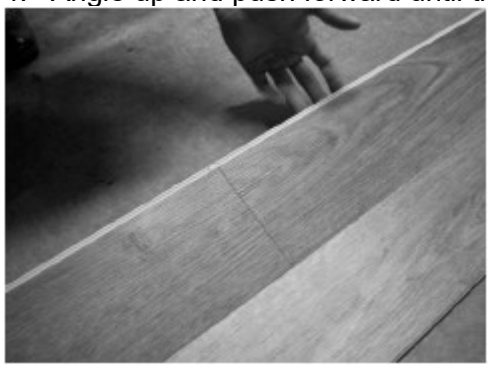

Fig. 5 – Locking long side with ends already locked

5. Continue installing full boards in the second and subsequent rows until you reach the wall on your right.

6. Mark the last piece, cut and install. After all boards in the row are installed, press or walk all boards flat to the subfloor to begin the next row. A tapping block may be used to fully engage the planks.

7. Use a pull bar when necessary to ensure joints are tight.

INSTALLING THE LAST ROW

1. The last row in the installation may need to be cut lengthwise.
2. Place the row of planks to be fit on top of the last row of installed planks. Use a divider or a piece of the plank as a scribe to trace the contour of the wall.
3. Be sure to place a spacer between the marking pen and “scribe” piece of board. This adds the 1/4″ (6.35 mm) to 1/2″ (12.7 mm) space you need at the finish wall.
4. Mark where the board should be cut.
5. If the fit at the finish wall is simple and straight, just measure for the correct width and cut.
6. After the last row is installed, use the pull bar to tighten the joints.
7. Install the long end of the first board in the second row at an angle to the board in the first row. Press flat to subfloor to lock into place.
8. Angle the long end of the next board in the second row to lock into the first row while positioning the short end of the board over the groove from the previous board. Lock and fold into place.
9. Follow the order described above to continue laying the boards in the second and additional rows.
10. Use a pull bar if necessary, to tighten joints.

When fitting in areas such as door casings it may be necessary to use a flat pull bar to engage the lock. Continue installing the remaining rows in similar fashion. For planks, maintain the 6″ minimum staggered end joints between rows and for planks maintain the 1/4″ gap at perimeter and vertical surfaces.

FULL BATHROOM INSTALLATION RECOMMENDATIONS

1. All perimeter expansion zones must be completely filled with 100% silicone caulk following the manufacturer’s recommendations. When applying caulk, it is helpful to first apply a strip of masking tape parallel to and approximately 1/32″ (.79 mm) from the edge of the flooring. Then fill the expansion zone with caulk, remove the excess with a plastic scraper or putty knife and remove the tape.
2. Molding may be used along a straight tub or shower base. The expansion zone should be filled with 100% silicone caulk and the molding seated in the caulk while it is still wet. The joint between the molding and the tub or shower base should also be caulked. If molding is not an option, a normal 1/4″ (6.35 mm) expansion zone may be used at the tub and then completely filled with 100% silicone caulk.
3. The toilet should be removed before installing the flooring. Allow a 1/4″ (6.35 mm) expansion zone between the flooring edge and the toilet flange. Completely seal the zone with 100% silicone caulk.

4. As with any hard-surfaced material, flooring can be slippery when wet.

Finishing the Job

Replace molding or wall base, allowing slight clearance between the molding and the planks. Nail the molding to the wall surface, not through the flooring. At doorways and at other areas where the flooring planks 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. Leave a small gap between the planks and the adjoining surface.

Proactive Protection for your Floor:

- When moving appliances or heavy furniture it is always wise to lay a plywood panel, or similar, on your floor and “walk” the item across it. This protects your floor from scuffing, gouging 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® Resilient & Ceramic 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® Low Gloss Floor Finish to restore the appearance of your Rest and Refuge™ floor. 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.