



INSTALLATION INSTRUCTIONS

ARMORCORE PLANK

Plank Size: (Nominal)	7" x 48"	12" x 24"
Sq. Ft./Carton:	40.67 (3.78 m ²)	42.04 (3.91 m ²)
Planks/Carton:	16 pieces	20 pieces

Installation System: Install planks or tiles directly adhered to the subfloor surface or as a floating floor over Congoleum UnderFlor or UnderFlor Acoustic Underlayment.

Adhesive: Use AD32 pressure sensitive adhesive for installation over Congoleum UnderFlor or UnderFlor Acoustic Underlayment and a variety of porous and non-porous surfaces. DS100 adhesive can be used as an alternative to AD32 adhesive.

WARNING

Existing Resilient Flooring

WARNING: DO NOT SAND, DRY SWEEP, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER ADHESIVE. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS AND/OR CRYSTALLINE SILICA. AVOID CREATING DUST. INHALATION OF SUCH DUST IS A CANCER AND RESPIRATORY TRACT HAZARD.

Various federal, state, and local government agencies have regulations governing the removal of in-place asbestos containing material. If you are considering the removal of a resilient floor covering structure that contains or is presumed to contain asbestos, you must review and comply with all applicable regulations. Regulations outside the United States may vary.

Copies of the Resilient Floor Covering Institute Recommended Work Practices for the Removal of Resilient Floor Coverings are available from:

Resilient Floor Covering Institute
112 Broad Street
Suite 201
LaGrange, GA 30240
www.rfci.com

MOLD AND MILDEW ISSUES

Prior to removing an existing floor following the RFCI Recommended Work Practices for Removal of Resilient Floor Coverings (unless state or local law requires other measures), if there are visible indications of mold or mildew or the presence of a strong musty odor in the area where resilient flooring is to be removed or installed, the source of the problem should be identified and corrected before proceeding with the flooring work. To deal with mold and mildew issues you should refer to the EPA guidelines that address mold and mildew. Depending on the mold and mildew condition present, those remediation options range from clean up measures using gloves and biocide to hiring a professional remediation contractor to address the condition. Remediation measures may require structural repairs such as replacing the underlayment and/or subfloor contaminated with mold and mildew as a result of prolonged exposure to moisture.

The EPA mold guidelines are contained in two publications "A Brief Guide to Mold, Moisture and Your Home" (EPA 402-K-02-003) and "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-01-001). Appendix B of the "Mold Remediation in Schools and Commercial Buildings" publication describes potential health effects from exposure to mold, such as allergic and asthma reactions and irritation to eyes, skin, nose and throat. These publications can be located on EPA's website www.epa.gov/mold.

GENERAL INFORMATION

It is important that flooring products maintain proper temperature at the time of installation in order to minimize thermal dimensional changes.

The subfloor, all flooring material, and adhesive must be conditioned at a constant temperature between 65°F (18°C) and 85°F (29°C) for 48 hours prior to, during and 48 hours after installation. Thereafter, maintain a room temperature between 55°F (13°C) and 90°F (38°C).

When using flooring from two or more cartons, make sure pattern and run numbers found on the carton are the same. This information is stenciled on the outside of each carton.

TOOLS AND MATERIALS

- UnderFlor or UnderFlor Acoustic Underlayment (optional)
- AD32 Adhesive - recommended
- DS100 Adhesive - alternative
- 1/16"x 1/32" x 1/32" notched trowel
- 100-pound, 3-section, steel roller
- Chalk line
- Carpenter square
- Utility knife (tile cutter optional)
- Cutting board
- Tape measure

PREPARING THE AREA

- Move all furniture, appliances, and fixtures from the room.
- Remove all binding strips or other restrictive molding from doorways, walls, etc.
- Undercut wood door casing where possible so that the flooring can be slid under it.

SUBFLOOR REQUIREMENTS

AarmorCore Plank can be installed directly bonded to the subfloor or as a floating floor over Congoleum UnderFlor or UnderFlor Acoustic Underlayment. The existing subfloor type and condition, preparation involved, cost and replacement ease, are all important considerations when selecting the best installation method for a particular job. The chart below provides a list of common subfloors and requirements for each installation method.

Subfloor Surface	When Installed over UnderFlor or UnderFlor Acoustic Underlayment	When Directly Adhered to SUBFLOOR
Suspended Wood subfloor over joist or trusses up to 19.2" OC	<ul style="list-style-type: none"> Single layer Sturd-I-Floor rated panel 23/32" or heavier Double layer construction, minimum 1" thick 	Double layer construction, minimum 1" thick with suitable underlayment panel. Do not install directly adhered over oriented strand board or particle board
Wood Underlayments	Plywood and other hardwood veneer panels, oriented strand board, NPA rated particle board	APA rated Underlayment grade plywood and other underlayment grade veneer panels
Concrete, on, above and below grade	With vapor emissions up to 5 pounds.	With vapor emissions up to 5 pounds
Lightweight Concrete and Gypsum Topping with a minimum 2000 psi compression rating	Preferred Method Must be smooth, dry and in sound condition. Repair all cracks and damaged areas.	Must be smooth, dry and in sound condition. Repair all cracks and damaged areas. Seal with a sealer/primer recommended by the topping manufacturer. A bond test is recommended. Do not install over powdery surfaces.
Radiant Heated Floors	Preferred Method	Gapping at end joints can occur with temperature fluctuations
	The temperature of the floor should be limited to 70°F (21°C) for 48 hours before, during and 48 hours after installation. There after the maximum subfloor temperature should not exceed 85F (29C)	
Existing Resilient Flooring and Tile Note: Refer to warning statement above.	Must be single layer, fully adhered and in good condition. Do not install over heavy cushioned or cushioned backed flooring or tile installed below grade.	Must be single layer, fully adhered, and in good condition. Do not install over heavy cushioned or cushioned backed flooring, tile installed below grade or self-adhering tile. Remove wax or polish and level embossed areas with an embossing leveler.
Ceramic, Marble, and Granite	Tile must be well bonded. Grind high spots and fill low areas to a smooth surface with a latex modified Portland cement underlayment.	

SUBFLOOR PREPARATION

All subfloor surfaces must be clean, dry, smooth and free of movement. All surface imperfections should be leveled with a Portland cement- based latex patching compound. Gypsum-based patching compounds are not recommended. For details on suitable subfloors and preparation when directly adhering to the subfloor, refer to the Congoleum Professional Installation Guide at www.congoleum.com.

UNDERFLOR AND UNDERFLOR ACOUSTIC UNDERLAYMENT

UnderFlor and UnderFlor Acoustic are the recommended underlayment systems for floating installations of ArmorCore Plank.

These products provide an economical solution for installing ArmorCore Plank as a floating flooring system over a variety of subfloor surfaces including wood, concrete, most old hard surface flooring, gypsum topping, even old adhesive residue and painted surfaces. UnderFlor Acoustic suppresses noise and enhances a floor's comfort underfoot.

RECOMMENDED USE

- Residential applications on all grade levels.
- Interior use in dry, heated areas.
- Do not install over ramps, in showers or other wet areas.

GENERAL INFORMATION

- Always roll sheets of UnderFlor tightly around a tube with the vinyl side out for storing and transporting. Avoid distorting UnderFlor.
- Condition the room and all flooring materials at a constant temperature between 65F (18C) and 85F (29C) for 48 hours prior to, during and 48 hours after installation.
- UnderFlor is 6' wide, available in both 16.67' and 120' lengths. UnderFlor Acoustic Underlayment is available in a 54" wide, 44.5' long roll.

- All UnderFlor underlayment and finished flooring must be installed with a 1/4" space around the perimeter of the room to allow for expansion and contraction of the flooring system and subfloor. Under cut door casing and slide finished flooring under for a finished appearance.
- Use AD32 or DS100 Adhesive for installing ArmorCore Plank over UnderFlor and UnderFlor Acoustic. Hard setting adhesives should not be used with UnderFlor.

UNDERFLOR AND UNDERFLOR ACOUSTIC UNDERLAYMENT INSTALLATION

Thoroughly sweep the floor to remove all loose dirt and debris.

Install UnderFlor with the vinyl side down just prior to installation of finished flooring. UnderFlor Acoustic can be installed with either side up.

Always install UnderFlor running perpendicular to the long dimension of the plank and tile flooring (Fig. 1). Install planks with staggered end joints positioned at least 2" away from the seams in the underlayment.

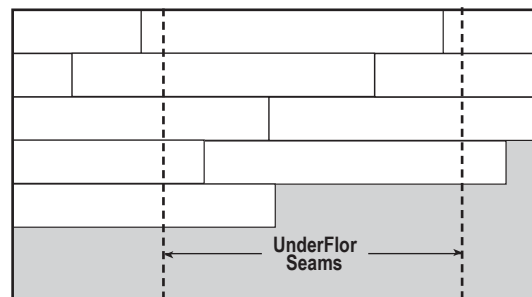


Figure 1

NOTE: UnderFlor Acoustic Underlayment may be fully adhered to the subfloor for a "double-bonded" installation, if desired. Complete all necessary subfloor preparation. Apply AD32 or DS100 with the recommended trowel and allow to dry to a tack.. Roll with a 100 pound, three-section roller before setting flooring.

Unroll the first sheet and trim it to fit allowing a 1/4" space between the edge of the sheet and the wall or any vertical surface.

Unroll the second sheet and position it with the seam edge butted lightly up to the first sheet.

Tape the sheets together with 2" wide clear packing tape or other thin single face plastic tape available through office supply stores and most home centers. Apply the tape, centered directly over the top of the seam edges. Roll the tape with a steel hand roller.

Suitable Packaging Tapes Include:

- Scotch 3850 Packing Tape
- Duck™ Tape Standard Packaging Tape
- Shurtape® HP Series

Do not use masking tape, fiber reinforced tape, duct tape or other thick tapes that might telegraph through the finished flooring.

Install finished flooring immediately after installing Underflor or UnderFlor Acoustic Underlayment to prevent contamination that could affect the adhesive bond.

FLOOR LAYOUT - PLANK 7" X 48"

First determine the direction to install the planks.

As a general rule, they are normally installed running in the long direction of the main room(s). Place a mark in the center of the floor at each end of the room. Snap a chalk line between the marks (Figure 2).

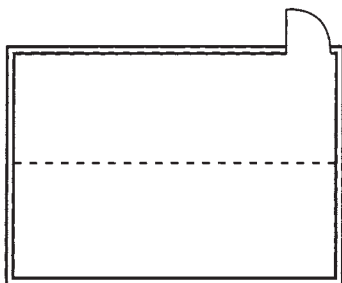


Figure 2

To avoid small narrow planks along the walls, divide the distance from the center line to the wall by the plank width (7"). If the remainder is less than half of one plank width, adjust the center line one half the width of a plank in either direction (Figure 3). This will provide a balanced layout with larger cut pieces at the wall.

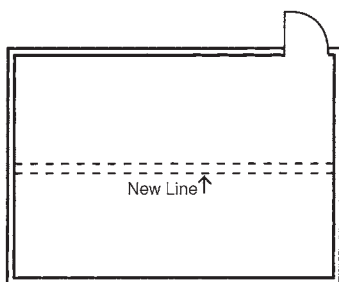


Figure 3

Apply UnderFlor AD32 or DS100 Adhesive using the trowel blade adaptor provided, or a 1/16" x 1/32" x 1/32" trowel. Spread the adhesive over one-half the floor up to the center line. Do not apply excess adhesive. Allow adhesive to dry to a tack, normally 45 to 60 minutes, before installing flooring.

When installing ArmorCore Plank over UnderFlor, slight growth (buckles) may occur immediately after adhesive application. This is normal and will not affect the finished flooring installation.

Start installing the plank along the center line (Figure 4). Complete each row, including cut pieces at the wall before proceeding to the next row. Offset cross joints by at least 6" and position planks in a random fashion for the best appearance. Position each plank, lightly against the previous one, by pressing it firmly into place with out sliding it. Avoid small cuts of less than 6" at the border, and be sure to place cut ends toward the wall.

NOTE: If necessary to adjust or remove a plank or tile, use a heat gun to warm it up first.

Complete the opposite side of the room following the same procedure.

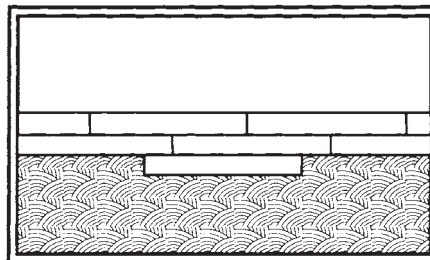


Figure 4

FLOOR LAYOUT - TILE 12" X 24"

First, determine the direction to install the tile and whether to install in a one-half drop or one-third drop layout.

Place a mark in the center of the floor at each end of the room. Snap a chalk line between the marks. Divide the distance from the center line to the wall by the tile width (12"). If the remainder is less than half of one tile width, adjust the center line one half the width of a tile in either direction.

Find the center of the starting line and snap a chalk line the entire width of the room at a 90° angle.

For 1/2 drop layouts divide the length of the tile by 2 (Ex: 24" ÷ 2 = 12"). Snap a new chalk line 12" away from the perpendicular line to establish the second starting location (Figure 5).

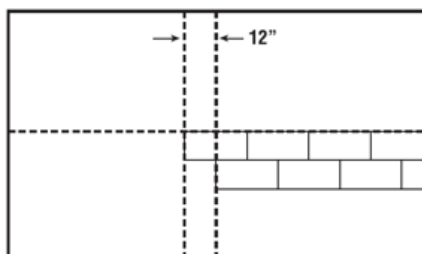


Figure 5

For 1/3 drop layouts divide the length of the tile by 3 (Ex: 24" ÷ 3 = 8"). Snap two new chalk lines at 8" and 16" away from the perpendicular line to establish the second and third starting locations (Figure 6).

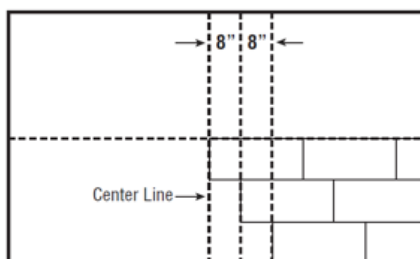


Figure 6

Always complete a dry layout or measure to check the size of the last tiles in each row. Adjust chalk lines if necessary to avoid short pieces at end walls.

Apply UnderFlor AD32 or DS100 Adhesive using the trowel blade adaptor provided or a 1/16"x 1/32" x1/32" trowel. Spread the adhesive over one-half the floor up to the center line. Do not apply excess adhesive. Allow adhesive to dry to a tack, normally 45 to 60 minutes, before installing the flooring. Allow adhesives to dry completely to a tack prior to flooring installation.

Tiles should be laid starting at the intersection of the center and perpendicular lines and out toward the walls. Install tiles along the center line in straight rows, alternating each row at the appropriate starting location. Complete each row, including cut pieces at the wall before proceeding to the next row. Position each tile lightly against the previous one, by pressing it firmly into place without sliding it. Avoid small cuts of less than 6" at the border, and be sure to place cut ends toward the wall. Complete the opposite side of the room following the same procedure.

CUTTING FLOORING TO FIT

The last row of plank or tile will need to be cut to fit to walls and other vertical surfaces.

STRAIGHT CUTS

Place a loose plank or tile directly over the top of the last full piece, making sure all edges are lined up. Using a whole piece as a measuring device, position one edge against the wall and mark the loose piece with a pencil along the opposite edge (Figure 7).

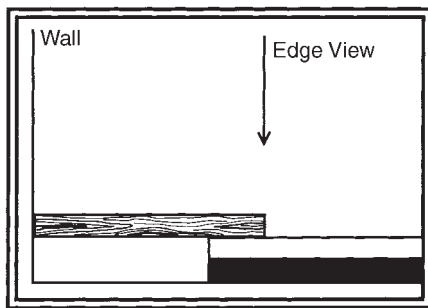


Figure 7

Next, place the marked piece on a cutting board. Using a carpenter square as a guide, score the pencil line carefully with a sharp utility knife. Break or cut the flooring along the score mark.

NOTE: When installing over UnderFlor, always cut to allow a 1/8" to 1/4" space around the entire perimeter.

CAUTION: Keep fingers away from knife blade to avoid injury. Install the piece with the cut edge against the wall.

IRREGULAR CUTS

Scribe plank or tile to fit to irregular shapes such as door trim, pipes, etc. Cut with a sharp utility knife.

IMMEDIATELY AFTER INSTALLATION

Roll the entire floor with a 100 pound, three-section roller. Restrict to light traffic for the first 24 hours.

Replace the base moldings and return appliances and furniture to the room by rolling or sliding them over strips of hardboard. When installing over UnderFlor, all finish trim and transition moldings must be installed so they do not bind or restrict the finished flooring from moving when expansion and contraction occurs during seasonal changes. Fasten the trim to the wall not to the subfloor. Do not drive fasteners into the floor or underlayment.

Seal all areas that may be exposed to surface spills, i.e. tubs, toilet and showers with an acrylic caulking.

ARMORCORE PLANK REPAIRS

Repairs are very simple. To replace a damaged plank or tile follow the below procedures:

- Warm the piece with a heat gun.
- Using a sharp utility knife, cut through a corner of the damaged piece taking care not to cut into the subfloor below.
- While the piece is warm, drive a putty knife into the cut corner, under the flooring to lift it from the adhesive.
- Lift and heat the end of the piece. Continue heating and lifting until the entire piece is completely removed
- Do not remove any adhesive residue. Instead, reapply the recommended adhesive over the exposed subfloor using the flat side of a trowel. If there is little or no adhesive residue, reapply adhesive using the correct trowel size.
- Allow adhesive to dry completely.
- Install the new piece and set firmly into place with a steel hand roller.

UNDERFLOR AND UNDERFLOR ACOUSTIC UNDERLAYMENT REPAIRS

Use the standard repair procedure outlined above to replace damaged plank or tile installed over an UnderFlor underlayment. If the underlayment gets damaged during the repair, replace the damaged flooring and UnderFlor underlayment easily by following the procedure below:

- Cut out the damaged plank or tile by inserting a sharp utility knife blade between the damaged piece and the surrounding plank or tile.
- Cut through the underlayment, taking care not to cut into the surrounding flooring, and remove the damaged piece.
- Place clear packing tape, adhesive side up, under the perimeter of the opening in the underlayment. Position the tape halfway under the flooring and underlayment, leaving the other half exposed.
- Cut a piece of UnderFlor or UnderFlor Acoustic Underlayment to fit in the opening and secure it into the tape.
- Apply AD32 or DS100 adhesive with the recommended trowel and allow to dry fully to a tack.
- Insert a new plank or tile into the adhesive and roll with a steel hand roller or 100 lb., three section roller.
- The repair is complete and the floor can be walked on immediately.