



Installation p.1 | Forge

A. UPON PRODUCT DELIVERY

1. Verify that packing slip matches product and order and inspect the delivered product thoroughly.
2. Do not stack pallets of material.
3. Store product and adhesive in a clean, dry environment between 65°F and 95°F. Product may be stored in temperatures under 65°F as long as it is installed in a room with working HVAC and has been properly acclimated prior to gluing.
4. Areas to receive flooring (including concrete slabs) should be maintained at a minimum uniform temperature of 65°F for 48 hours before and after (as well as during) installation.
5. Read product and subfloor preparation instructions carefully and completely before beginning installation.

B. PREPARATION

JOB SITE CONDITIONS

1. Installation should not begin until all other trades are completed in the area to receive flooring.
2. If the job requires other trades to work in floored area following installation, flooring should be protected with suitable cover. Kraft paper and plastic work well.
3. Areas to receive flooring should be weathertight and maintained at a minimum uniform temperature of 65°F for 48 hours before and after (as well as during) installation.
4. When using PLAE Anchor, no moisture testing is required. However, if a moisture test is requested by any specific party, three tests will be required for the first 1,000 sq. feet and one per additional 1,000 sq. feet.

PRODUCT

Forge rolls should be protected from excessive moisture and other damage before and during installation, as well as while curing.

SUBFLOOR SURFACE

Forge may be installed over concrete, approved patching and leveling materials (e.g. Ardex K-15), and wood.

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

WOOD SUBFLOORS

Wood subfloors should be double construction with a minimum thickness of 1in. The floor must be rigid and free of movement with a minimum of 18in of well-ventilated airspace below. Stagger head seams 3' to 6' from row to row.

UNDERLAYMENTS

The preferred underlayment panel is the American Plywood Association (APA) underlayment grade plywood with a minimum thickness of 0.25in and a fully sanded face.

NOTE: Particleboard, Chipboard, Masonite, and Lauan are not considered to be suitable underlayments.

CONCRETE FLOORS

Concrete shall have a minimum compressive strength of 3000psi. New concrete slabs should cure for a minimum of 28 days before Forge installation. It must be fully cured and permanently dried.

C. SUBFLOOR REQUIREMENTS AND PREP

GENERAL CONDITIONS

1. Subfloors shall be dry, clean, smooth, level, and structurally sound. They shall be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
2. Subfloors shall be smooth to prevent irregularities, roughness, or other defects from telegraphing through new flooring. The surface should be flat to the equivalent of 0.125in per 10 sq. feet.
3. Subfloors shall have a proper drainage gradient (2 percent is suggested) to prevent pooling of liquid.



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4. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved Portland-based cement patching compound.

5. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved Portland-based cement patching compound.

NOTE: Control joints (saw cuts) can be filled with PLAE Joint Filler.

6. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the flooring adhesive.

HAZARDS

SILICA WARNING

Concrete, floor patching compounds, toppings, and leveling compounds can obtain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.

ASBESTOS WARNING

Resilient flooring, backing, lining felt, paint, or asphalt "cutback" adhesive can obtain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, bead-blast, or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document "Recommended Work Practices for Removal of Existing Floor Coverings" available from the Resilient Floor Covering Institute.

LEAD WARNING

Certain paints may contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws, as well as the publication "Lead-Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing" available from the United States Dept. of Housing and Urban Development."

NOTE: This product is not suitable for installation over a radiant heat source.

D. MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Roll material should always be stored lying down. Storing rubber on end will curl the edges, resulting in permanent material memory. All edges with memory curl must be straight edge cut before installation. Do not store rolls higher than 4 rolls or for more than 6 months. The material should only be stored on a clean, dry, smooth surface.
3. Inspect all materials for visual defects before beginning the installation. No labor claims will be honored on material installed with visual defects. Verify the delivered material is the correct size, color, and amount. Any discrepancies must be reported immediately, before beginning installation.

NOTE: Forge is manufactured from recycled materials. Slight variances in shade, color chip dispersion, and thickness are considered normal. Installers are responsible for inspecting all products to ensure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately, before beginning installation.

E. INSTALLATION

1. Make the assumption that the walls you are butting against are neither straight nor square. Using a chalk line, make a starting point for an edge of the flooring to follow. The chalk line should be set where the first seam will be located.
2. Remove Forge from its wrapper and unroll it onto the floor. All Achieve rolls must be unrolled and installed in the same direction and in roll sequence. See diagram 1. Laying rolls in the opposite direction will cause color variations between the



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rolls. Be sure to stagger the head seam joints 3' to 6' from row to row. Each Forge roll will be labeled with a number that corresponds to the sequence in which it came off the machine. It is important to lay the rolls in sequence (roll 1, roll 2, roll 3, etc.) to avoid obvious shade variances.

3. Roll material is stretched slightly during the manufacturing process. When first unwrapped from the roll, the material will "dome" to approx. 0.5in from the underside of the material to the floor. At the job site, the installer should unroll all rolls and allow them to relax overnight. A bare minimum of 2 hours is required. Shaking the unrolled material can also help it to relax. This "domed" area affects approx. the first 6in of the roll. After approx. 15 minutes of dry-lay "relax" time, this gap should reduce to approx. 0.125in at its highest peak. With this extreme thickness, it's possible this slight "lift" will remain as "memory" even after the entire relaxation time. In such cases, it will be necessary to weigh the material down until the adhesive has developed a firm set. Cut all rolls at the required length, including enough to run up the wall a few inches. If end seams are necessary, they should be staggered on the floor and overlapped approx. 3in - 6in. End seams will be trimmed after the acclimation period using a square to ensure they fit tightly without gaps.

4. Align the first edge to the chalk line.

NOTE: It is very important that the first seam is perfectly straight).

5. Position the second roll with no more than a 0.125in overlap over the first roll at the seam. After the adhesive is applied to the substrate, the material will be worked back to eliminate the overlap. This procedure will leave tight seams and eliminate any gaps. Care should be taken to not overcompress the seam. Over compressed seams will cause peaking.

6. It may be necessary to trim the edge of the second lineal drop if the rolls do not extend the length or width of the room. Rolls laid end to end with a variance in roll width greater than 0.25in could result in peaked seams. Be sure to cut off the last 6in - 8in of material from each roll as there is a residue left over from the tape used to attach the rubber to the roll core.

7. Repeat for each consecutive sheet necessary to complete the area or all rolls to be installed that day.

8. After allowing proper acclimation and rough cuts are made you may begin the installation.

NOTE: Color 904 Gray must be trimmed 1in on each side to help hide seam visibility.

GLUE DOWN

1. After performing the above procedures, begin the application of the adhesive. Be sure to apply adhesive to the substrate using the recommended trowel size on the glue pail.
2. Roll back the first drop along the wall (half the width of the roll).
3. Again, spread the adhesive using the recommended trowel size on the glue pail.
4. Lay the flooring into wet adhesive. Do not allow the material to "flop" into place (which might cause the trapping of air bubbles beneath the flooring).
5. Immediately roll the floor with a 75lb - 100lb roller to ensure proper adhesive transfer. Overlap each pass of the roller by half the width of the previous pass to ensure thorough rolling. Roll the width first and then the length.
6. Roll back the second half of the second roll. Spread the adhesive at right angles to the seam to prevent the adhesive from oozing up through the seam. Roll the flooring.
7. Continue the process for each consecutive drop. Work at such a pace that you are always folding material back into wet adhesive.

NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.

8. Do not allow the adhesive to cure on your hands or any visible surfaces of the flooring. Cured adhesive is very difficult to remove from hands. We strongly suggest wearing gloves while working with adhesive. Uncured spots of excess adhesive can be removed using denatured alcohol wipes;

Diagram 1

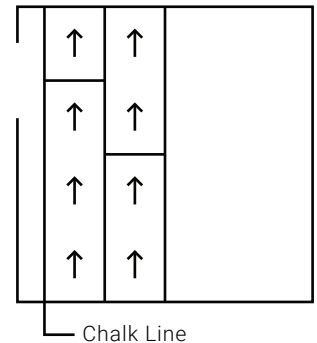
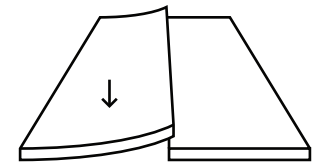


Diagram 2



Overlap side edges by 0.125in and force alignment to ensure tight seams.



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9. Hand roll all seams after the entire floor has been rolled. All seams should be taped using 3M 2" 233+ Green Masking tape approximately every 6in to ensure the seams remain tight until the adhesive is cured. 3M 2" 233+ Green Masking tape should be removed after the adhesive has developed a firm set (approx. 12 hrs later). PLAE will not be responsible for residue left behind by 3M 2" 233+ Green Masking tape of any kind. Clean tape residue after removal. PLAE will not be responsible for residue or damage caused by any other type of tape used.

10. In some instances, it may be necessary to weigh down the side seams using paver bricks until the adhesive develops a firm set. Head seams and logos should always be weighed down.

NOTE: Keep traffic off the floor for a minimum of 24 hrs after installation. The floor should be free of rolling loads for a minimum of 48hrs - 72hrs. Foot traffic and rolling loads can cause permanent indentations and/or disbonding in the uncured adhesive.

F. INSTRUCTIONS FOR INSTALLING TILES

1. Make sure that the room temperature does not go below 65°F.
2. Measure the length and width dimensions of the area to be covered.
3. Use a chalk line to divide the room into 4 by drawing lines across the middle points of the width and length of the room (Make sure lines are straight to ensure tiles are aligned with the walls).
4. Start in one quadrant and use a chalk line to mark tile placement, which minimizes cuts. (Overlapping middle point lines are acceptable)
5. Cut tiles efficiently to avoid waste.
6. Lay tiles in the same direction onto the first quadrant of the floor.
7. Apply adhesive, if desired, to substrate with the recommended trowel size on the glue pail to tiles farthest from the wall.
8. Lay tiles into wet adhesive.
9. Repeat steps 7 & 8 on the first row of tiles doing the tiles farther from the wall first.
10. If gaps between seams exist, hold them together with 3M Green tape.
11. Within 45 minutes of laying tile into adhesive, roll the floor with a 75lb - 100lb roller to eliminate air traps. (Overlap each pass of the roller by 50 percent)
12. Repeat steps 7-11 on subsequent rows of tiles.
13. Once one quadrant is finished, move on to the remaining 3 quadrants by repeating steps 6-12.

NOTE: If a tight and clean fit against a wall is desired, be sure to order enough material so that tiles are accounted to run up the wall to be trimmed or, if that's not desired, please know that the exposed interlocking edge will need to be trimmed for a finished look if desired. Edge and border pieces are not available.