# INSTALLATION INSTRUCTIONS

**Adura®**
LOCK SOLID™ TECHNOLOGY

MANNINGTON®

## I. GENERAL INFORMATION

These installation specifications are for Adura® with LockSolid™ technology. All recommendations are based on the most recent available information. All instructions and recommendations must be followed for a satisfactory installation.

1. The flooring should be stored and installed in climate controlled indoor locations continuously maintained between 65°- 85°F.
2. Install LockSolid only after the jobsite has been cleaned and cleared of other trade apparatus that may damage a finished installation.
3. Mix and install product from several different cartons to achieve maximum variation.
4. All subfloor / underlayment patching must be done with a non-shrinking water resistant Portland cement patching compound such as Mannington MVP-2023.
5. Never install Adura products over residual asphalt-type (cut back) adhesive. It can bleed through the new flooring. Residual asphalt-type adhesive must be completely removed and covered with underlayment plywood or Mannington latex underlayment.

## II. SUBFLOOR INFORMATION

Careful and correct preparation of the subfloor is a major part of a satisfactory installation. Although Adura LockSolid is installed as a "floating" floor, correct preparation of the subfloor is still a major part of a successful installation. Roughness or unevenness of the subfloor may telegraph through the new floor covering, resulting in an unsightly surface and excessive wear on high spots.

### A. Wood Subfloors

All wood floors must be suspended at least 18" above the ground. Adequate cross-ventilation must be provided, and the ground surface of a crawl space must be covered with a suitable vapor barrier. Wood subfloors directly on concrete or installed over sleeper construction are not satisfactory for installation.

1. All wood and wood composition panels are suitable for use under flooring providing that they are smooth, flat, structurally sound and free of deflection. This includes plywood, particleboard, oriented strand board (OSB), flakeboard, and wafer board.
2. If the surface of the wood subfloor is not smooth, a ¼" underlayment panel should be installed over the subfloor.
   Any panels selected as an underlayment must meet the following criteria:
   > Be dimensionally stable
   > Have a smooth, fully sanded face so the graining or texturing will not show through
   > Be resistant to both static and impact indentation
   > Be free of any surface components that may cause staining such as plastic fillers, marking inks, sealers, etc.
   > Be of uniform density, porosity and thickness
   > Have a written warranty for suitability and performance from the panel manufacturer or have a history of proven performance

### B. Concrete Subfloors

1. Concrete subfloors must be dry, smooth, and free from dust, solvent, paint, wax, grease, oil, asphalt sealing compounds and other extraneous materials. The surface must be hard and dense, and free from powder or flaking.
2. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured.
3. All concrete slabs must be checked for moisture before installing material. Details for moisture testing can be found on our website. The final responsibility for determining if the concrete is dry enough for installation of the flooring lies with the floor covering installer. Adura must never be installed where excessive moisture emissions may exist. Moisture emission from subfloor cannot exceed 3 lbs. per 1,000 sq. ft. per 24 hours as measured with the calcium chloride test. Mannington will not assume responsibility for floor covering failure due to hydrostatic pressure or moisture vapor emission. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured. Although the LockSolid planks are not susceptible to damage from moisture, excessive subfloor moisture is an ideal breeding ground for mold, mildew and fungus. All of which can contribute to an unhealthy indoor environment. The Limited Warranties do not cover discoloration from mold or from flooding, leaking plumbing or appliances, water entering through sliding glass doors or similar conditions.
4. Holes, grooves, expansion joints and other depressions must be filled with Mannington MVP-2023 Patching & Leveling Compound (or equivalent), and troweled smooth and feathered even with the surrounding surface.
5. Concrete floors with a hydroponic radiant heating system are satisfactory, provided the temperature of the floor does not exceed 90°F at any point. Before installing the flooring, the heating system should be turned on to eliminate residual moisture.

**Recommended Work Practices for Removal of Resilient Floor Coverings**

**WARNING**: Do not sand, dry scrape, 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. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the 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. RFCI's Recommended Work Practices for Removal of Resilient Floor Coverings are a defined set of instructions addressed to the task of removing all resilient floor covering structures. These instructions should be consulted with each installation. The link can be found on our website.

### C. Existing Floor Coverings

LockSolid can also be installed over most existing hard–surface floor coverings provided that the existing floor surface can be made smooth.

1. Ceramic tile should be made smooth by applying a cementitious overlay such as patching or leveling compound.
2. In the rare cases that the removal of the existing resilient floor covering is not an option, the existing flooring must be covered with MANNINGTON MVP-2023 used as an Embossing Leveler or equivalent.

## III. INSTALLATION

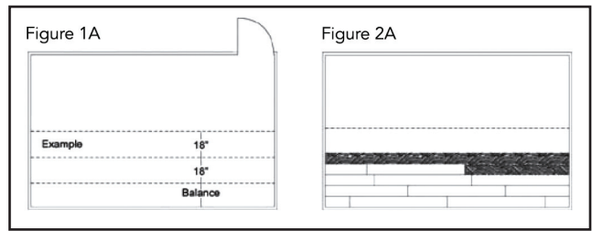
LockSolid is designed to be installed as a "floating" floor. Do not secure the planks to the subfloor. Always undercut all doorjambs. Do not install cabinets or kitchen islands on top of LockSolid. Use care when installing wall moldings and transition strips to not fasten through the product.

### A. Plank Layout

1. It is important to balance the layout of the plank format. Proper planning and layout will prevent narrow plank widths at wall junctures. Determine layout to prevent having less than half a plank width or very short length pieces.
2. As with all plank products, lay the long dimension of the plank parallel to the long dimension of the work area.
3. Accurately measure the room to determine the centerline, adjust this established line to accommodate a balanced layout and then transpose this line to a comfortable width away from the starting wall (approximately 2' to 3' wide). Determine if the starter row will need to be cut. If the first row of planks does not need to be trimmed in width, it will be necessary to cut off the unsupported tongue so a clean, solid edge is toward the wall.
4. Position the first plank so that both the head and side seam groove are exposed. This requires installing the product from left to right in the room. 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.
5. Install the second plank in the row by angling the end tongue into the end groove of the first plank. Be careful not to bend the corner of the plank. Maintain an expansion gap of approximately 5/16" from the wall. Then cut a plank to length to start the second row. Stagger the end seam at least 6" from the first plank.
6. Install the first plank in the second row by inserting the long side tongue into the groove of the plank in the first row. This is best done with a low angle of the plank.
7. Install the second plank in the second row by inserting the short end tongue into the previously installed plank groove. Align the plank so the long side tongue tip is positioned just over the groove lip of the plank in the first row. Working from the end seam, with a low angle, insert the long tongue into the groove of the adjoining plank. Very little force is required to seat the tongue into the groove. You will feel the tongue lock into the groove.
8. Work across the length of the room installing planks along the wall in the first row and then aligning the planks in the second row. It is critical to keep these two rows straight and square, as they are the "foundation" for the rest of the installation. Check squareness and straightness often.
9. Cut the last plank in the first row to fit approximately 5/16" short of the end wall. Planks may be cut with a utility knife using the "score and snap" technique. Often times the remainder of this plank may be used to start the third row.
10. Continue installing planks, being certain to maintain a random appearance and offset end seams by at least 6". Maintain a 5/16" expansion space at all fixed vertical surfaces. Check to be certain all planks are fully engaged, if slight gapping is noticed the gap can be tapped closed by using a scrap of flooring and a tapping block.
11. When fitting under door casings, etc. the flexibility and low angle of connection of the LockSolid product become evident. If necessary a flat pull bar or "last board puller" may be used to assist in locking the planks.
12. When fitting around obstacles or into irregular spaces, LockSolid can be cut easily and cleanly using a utility knife with a sharp blade. It is often beneficial to make a cardboard template of the area and transfer this pattern to the plank.

B. Tile (including Rectangle) Layout*

1. As with all tile formats, Adura should be "balanced" in the work area. Tiles may be laid squarely or laid out diagonally in the work area. Tiles may also be installed in a normal point to point layout or in an ashlar (staggered, brick) layout. In either case, the room must be accurately measured to square off the area and to determine the center point. Accurately measure the room to determine the center line, adjust this established line to accommodate a balanced layout and then transpose this line to the determined layout width away from the starting wall (approximately 2' to 3' wide - see Figure 1A). Careful and precise measurements must be taken during tile layout. Lay all tiles in the same direction, with all directional arrows imprinted on the back of tiles pointing in the same direction.




2. Position the first tile in the starting corner with the tongues facing the wall.
3. Install the second tile in the first row by inserting the tongue into the groove, continue installing several more tiles in the first row, use spacers to maintain a 5/16" expansion gap at all walls.
4. Install the first tile in the second row by inserting the tongue into the groove.
5. Now position the second tile in the second row by inserting the tongue into the side groove and by slightly lifting the first and second tile, insert the tongue into the groove. *If you are using Adura LockSolid Tile wedges, please note separate instructions on bridges with wedges included with the wedges or on our website.
6. Continue installing row after row of tiles until completion.
7. When fitting under door casings, etc, the flexibility and low angle of connection of LockSolid becomes evident. If necessary, a flat pull bar or "last board puller" may be used to assist in locking.
8. When fitting around obstacles or into irregular spaces, LockSolid can be cut easily and cleanly using a utility knife with a sharp blade. It is often beneficial to make a cardboard template of the area and transfer this pattern to the tile.

IV. Finishing the Job

Protect all exposed edges of LockSolid by installing wall molding and/or transition strips. Use caution to prevent the fasteners from securing the planks to the subfloor. Caulk along tubs, toilet bowls, etc.

After 48 hours, damp mop to remove residual surface dirt. Follow appropriate maintenance schedule for Adura.

**Like with all floor coverings, protect the finished LockSolid installation from exposure to direct sunlight. Close your curtains or blinds were extreme sunlight hits the floor. A combination of heat and sunlight can cause most home furnishings fading, discoloration, or thermal expansion. Avoid exposure to direct sunlight for prolonged periods. Prolonged direct sunlight can result in discoloration and excessive temperatures may cause floor expansion (which may cause buckling) or delamination. See Cautions & Miscellaneous for details.**

V. REPAIRS

Adura LockSolid is tough and durable, however, if a floor becomes damaged it can be replaced.

If the damaged plank or tile is along the perimeter of the room, the easiest technique is to just disconnect the planks until the damaged plank is removed. Replace the material and reassemble the planks.

If its impractical to just disconnect and reassemble the flooring the following procedure should be used:

1. Using a straight edge and a sharp utility knife, cut out and remove the center of the damaged piece, leaving approximately a 1" strip attached to the surrounding material.
2. Carefully cut back from the corners of the plank or tile to the inside edge.
3. Remove the edges by wiggling the cut plank out from the tongue and groove of the surrounding pieces.
4. Prepare the replacement flooring by placing it face down and folding back and removing the groove strip on both the long and end profile. Using the decorative surface of the tongue end as a guide, cut away this over-hanging profile using a sharp utility knife.
5. Position the replacement piece by engaging the tongue of the long side into the groove of the adjoining material. "Hinge" the prepared replacement plank into position.
6. Use a hand roller to assist in aligning the edges into position.
7. Apply a thin application of Mannington MCS-42 Seam Sealer or CoreWeld into all four seams of the replacement. Allow the sealer to penetrate and then wipe excess from surface.
8. Weigh down the replaced plank for at least 15 minutes until the sealer secures the material.

VI. CAUTIONS AND MISCELLANEOUS

A. Furniture should be moved onto the newly installed floor using an appliance hand truck over hardboard runways.

B. Heavy furniture should be equipped with suitable non-staining, wide-bearing casters or protectors. Non-staining felt protectors are recommended for table and chair legs to help prevent scratching.

**C. Close your curtains or blinds were extreme sunlight hits the floor. Like with all floor coverings, protect the finished LockSolid installation from exposure to direct sunlight. A combination of heat and sunlight can cause most home furnishings fading, discoloration, or thermal expansion. Avoid exposure to direct sunlight for prolonged periods. During peak sunlight hours, the use of blinds or drapes is recommended. Prolonged direct sunlight can result in discoloration and excessive temperatures may cause floor expansion (which may cause buckling) or delamination.**

D. Oil or petroleum-based products can result in surface staining. Do not track asphalt-driveway sealer or automobile-oil drips onto the vinyl floor covering.

E. Use mats labeled "non-staining".

For more information on the LockSolid installation, please check out our installation videos on www.YouTube.com (keyword: LockSolid).
For additional assistance with tile, LockSolid Wedges can be used.

Produced under the license of Flooring Industries™.
U.S. Patent 6,291,078; U.S. Patent 6,218,001; U.S. Patent 7,384,697; U.S. Patent 7,763,345; U.S. Patent 8,021,741 and other patents pending.