



# **AMARCO PRODUCTS - MEGA-TILE**

## **TECHNICAL MANUAL**

Installation • Maintenance • Warranty

# TABLE OF CONTENTS

## TOOLS AND BASE PREPARATION

Recommended Installation Methods	3
Tools/Materials Required	3
Site Work	3-4
Base Options	4

## INSTALLATION

General Information	5
Site Layout	5
Base Lock	6
Laying Tile for Starter Course	6
Laying the Second & Subsequent Tile Courses	6-7
Fitting the Outer Course Tile	7
Adhering the Outer Course & Ramps	7
Installation of ADA Ramps	8

## FULL GLUE DOWN INSTALLATION

Applying Adhesive & Laying Tiles	9
Cutting Tiles & Ramps	9
ADA Ramp Preparation	9

## MAINTENANCE

Floor Protection	10
Assignment of Cleaning & Maintenance	10
Cleaning Chart	11
Cleaning Procedures	11

# INSTALLATION METHODS, TOOLS AND BASE PREPARATION

## I. RECOMMENDED INSTALLATION METHODS

INTERIOR INSTALLATION			EXTERIOR INSTALLATION		
	24" x 24" x 1"			24" x 24" x 1"	
Surface	Base Lock only	Base Lock +Full Glue	Surface	Base Lock only	Base Lock +Full Glue
Concrete	<input type="checkbox"/>	<input type="checkbox"/>	Concrete	N/A	<input type="checkbox"/>
Asphalt	<input type="checkbox"/>	<input type="checkbox"/>	Asphalt	N/A	<input type="checkbox"/>
Plywood	<input type="checkbox"/>	<input type="checkbox"/>	Compact Gravel	N/A	N/A
Compact Gravel	N/A	N/A	Wood	N/A	N/A
Wood or Tile	<input type="checkbox"/>	<input type="checkbox"/>	Resilient Flooring	N/A	N/A
Resilient Flooring	<input type="checkbox"/>	N/A	Carpet	N/A	N/A
Carpet	<input type="checkbox"/>	N/A	Rooftops	N/A	N/A
<input type="checkbox"/> = Approved			N/A = NOT Approved		

## II. TOOLS / MATERIALS REQUIRED

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Two tape measures - 25' and 50'</li> <li>2. Chalk line - white only!</li> <li>3. Saber saw (Jig saw) or band saw</li> <li>4. Blades for saber saw (7-10 teeth per inch, wood type)</li> <li>5. Utility knife with heavy-duty blades</li> <li>6. Framing square/metal straightedge</li> <li>7. Silver or gold color paint pencils</li> <li>8. Standard size caulk gun</li> <li>9. 4" slot blade screwdriver</li> <li>10. Notched trowel -1/8" square notch</li> <li>11. Safety glasses</li> <li>12. 1-1/2" flexible putty knife</li> </ol> | <ol style="list-style-type: none"> <li>13. Coveralls</li> <li>14. Kneepads</li> <li>15. Solvent safe rubber gloves</li> <li>16. Rags</li> <li>17. Trash bags</li> <li>18. Push broom or shop vac</li> <li>19. Mineral spirits</li> <li>20. Installation instructions</li> <li>21. String line</li> <li>22. Cutting table (shipping pallet)</li> <li>23. Dustpan</li> <li>24. 2-3 lb. sledge hammer or rubber mallet</li> <li>25. 2'x 4' to use as tapping block</li> <li>26. Adhesive</li> </ol> |
|---|--|

## III. SITE WORK

**NOTE:** Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

### A. Site Elevation

1. On grade installation - The finished installed height of the Mega Tile surface will be equal to or slightly higher than the perimeter grade but not more than 1" higher unless approved by the project engineer.

2. Above grade installation - The installation of Mega Tile over existing decks or slabs is referred to as “above grade installation” and will usually require the use of reducers around the perimeters of the area to transition smoothly back to the floor elevation, unless the site terminates at a wall or other vertical surface.

**B. Site Slope/Drainage**

1. When preparing a new hard base, if applicable, a minimum slope equal to 1” per 10’ of run shall be applied to the finished surface with slope toward the drain basin and drain trough or down-grade side of the site.
2. An acceptable drainage system needs to be put in place to eliminate standing water.

**IV. BASE OPTIONS**

**A. Hard Base Construction**

1. Concrete Base:
  - a. The base will be constructed of cast-in-place, non-structure, Class A or C concrete that will develop a minimum compressive strength of 3,000 PSI after 28 days cure (minimum thickness = 4”). Care should be taken to provide for the stated slope. The base should be free of depressions that would pond water. A light broom finish is best for maximum adhesion of the Mega-Tile tile. New concrete slabs should cure for a minimum of 28 days before installing Mega-Tile.
2. Paved Asphalt Base:
  - a. Course aggregate mixtures will provide a stable base. The aggregate size best suited for the adhered system is 3/8” to 1/2”. Do not use asphalt mixtures that contain a high percentage of fines, as they are not stable in hot weather and may become soft enough to allow the tiles to slide in high use areas.
  - b. The soil sub grade must be compacted with a minimum of two passes using a 10 ton vibratory roller with no soft or moving areas upon completion. The crushed stone base must also be compacted with a minimum of two passes using a 10 ton vibratory roller. The binder and wear courses of the asphalt must both meet 95% of the theoretical maximum density of the JMF (Job Mix Formula).

Total Passing Sieve	Percent by Weight
<b>1/2”</b>	<b>100</b>
<b>3/8”</b>	<b>80-100</b>
<b>#4</b>	<b>45-90</b>
<b>#8</b>	<b>30-65</b>
<b>#50</b>	<b>5-25</b>
<b>#200</b>	<b>2-8</b>
<b>Asphalt Cement</b>	<b>6-8</b>

- c. New asphalt surfaces should be allowed to cure for 28 days before the adhered Mega-Tile system is laid.



## Mega-Tile 200 - 1" Virgin Rubber Gym Tile Installation & Maintenance

### I. GENERAL INFORMATION

- A. 1" Mega-Tile may be installed over most concrete, wood, or tile. The floor over which 1" Mega-Tile is installed must be level, in good condition, and clear of dirt and loose debris.
- B. For installations requiring adhesion to concrete, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels exceed the limitations the installation should not proceed until the situation has been corrected.
- C. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
- D. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
- E. Installation should not begin until after all other trades are finished in the area.
- F. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F for 48 hours before, during, and after the installation.
- G. Unpack tiles and allow them to sit in the area to be installed. Tiles and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

**NOTE:** Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color-tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

**As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.**

### II. SITE LAYOUT

- H. Sweep area clear of all dust and loose debris.  
Determine a starting point for the first course of tile to best suit the site area. For irregular site configurations, the best starting point is often in the center. This will ensure a symmetrical finish for tiles that require trimming along the perimeter. Other installations are best started in the corner or along one edge that represents the length or width dimension of the site.
- I. **It is important to start the installation from a perfectly straight edge, such as a wall, or timber that is secured to the substrate. This will allow you to keep the tiles straight and snug during the installation process.**
- J. Mark two points on the base surface at an equal distance from the edge of the installation. These points should be located near the opposite ends of the site in the length-wise direction.
- K. Snap a chalk line through the established points.
- L. Measure the length of the site along the chalk line. Mark a point at half the distance of the site.
- M. Using the 3-4-5 right triangle method, snap a chalk line to form a 90° angle to the previously established length-wise chalk line. These perpendicular reference lines will serve as a guide for laying the first course of tile. A channel or timber may be secured to the substrate to help keep the tiles snug during the installation process.

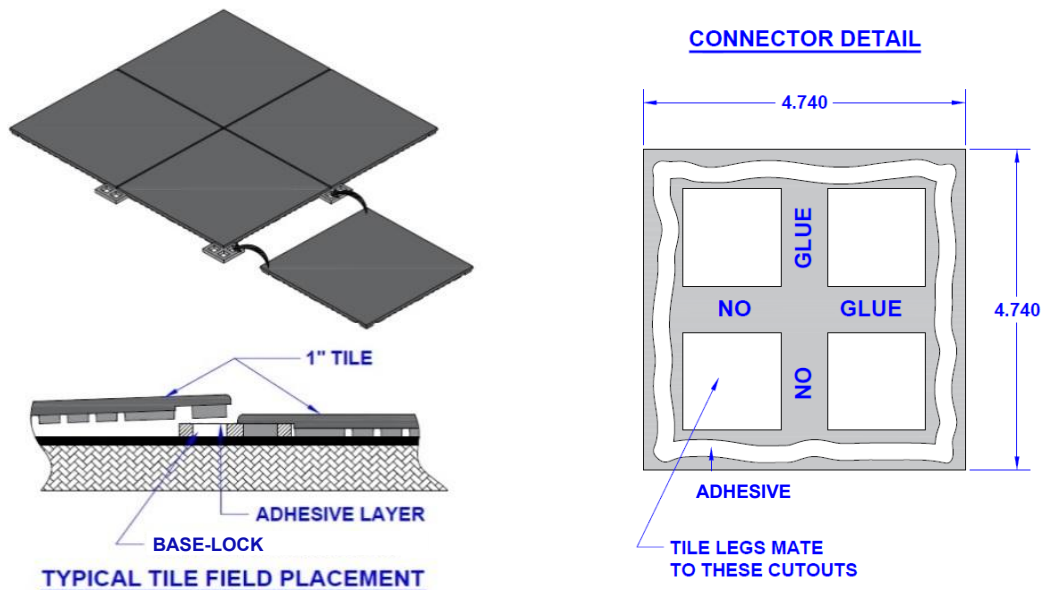
**NOTE: Amarco Products' Mega-Tile is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.**

### III. BASE-LOCK INSTALLATION (Required)

- A. Follow the Site Layout instructions to prepare the area for the installation of the 1" tiles.
- B. Once chalk lines are established, place the first tile at the intersection of two chalk lines, aligning adjacent edges of the tile with the chalk lines.
- C. Apply a continuous 1/4" diameter bead of adhesive around the perimeter of the Base-Lock connectors. Working adhesive time is dependent upon environmental conditions. See NO GLUE zones in Connector Detail drawing below.
- D. Fit the first tile with four prepared Base-Lock connectors by lifting each tile corner slightly, sliding the connectors under each corner and engaging the four corner legs of each tile with the respective apertures in the Base-Lock. Continue to sequentially lay the tile and to set the Base-Lock connectors along one chalk line until the first course of tile is complete.

**NOTE: Cut the Base-Lock connectors in half to secure perimeter tiles**

- E. Complete the other three quadrants in a similar fashion.
- F. Depending on manpower availability, one or more quadrants can be worked on simultaneously using the above method.
- G. Allow 24 hours for adhesive to cure before opening area for foot traffic, and 72 hours prior to placing equipment.
- H. One 10.1 ounce tube of adhesive is required for approx. 15 of the Base-Lock



Note: Adhesive spills must be removed **while still wet**. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.



#### IV. FITTING THE OUTER COURSE TILE

- A. In most wall-to-wall installations, the tile in the outer course will have to be cut to fit. Tile may be cut using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also works well. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital settings will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for this purpose for in-field use.
- B. If 1" Mega-Tile is being installed wall-to-wall, the tiles **MUST** be held together with Base-Locks, with the walls serving to contain the outer rows of tile. Tiles that are not contained by walls, either at openings in the wall (i.e. doorways) or freestanding, should be contained by adhering the outer tiles and 1" Mega-Tile ramps around the outer perimeter. The adhered ramps provide a transition from the 1" thick tile to the original floor level. The perimeter tiles and ramps must be adhered using adhesive with a 1/8" square-notched trowel indoors over substrate.

#### V. CUTTING 1" TILE & RAMPS

- A. Avoid leaving a cut edge of a tile exposed to eyesight. To guarantee a finished appearance, any tile that has its factory molded, radius edge removed for any reason should be backed along that edge using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- B. The most accurate cuts in tiles are made using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also does an acceptable job, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for infield use.

#### VI. PREPARATION FOR INSTALLATION OF ADA RAMPS

- A. Make sure that the subfloor is flat, clean, dry and free of contaminants such as waxes, finishes, sealers, or other extraneous materials that would prevent a good adhesive bond.
- B. Unpack the materials and allow them to sit in the area to be installed. Materials and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

**Note:** The toe edge of the ramp contains a wire reinforcement material. Take care not to bend the edges as it will be difficult to get ramps with bent reinforcement to lay flat.

- C. When the Mega-Tile installation is complete clean and prepare the remaining area for full adhesion of the ramps.

#### VII. ADHERING THE OUTER COURSE

- A. Outer tiles, which are not contained by walls, should be adhered to the existing floor using adhesive with a 1/8" square notched trowel indoors over substrate. Set tiles and ramps in the adhesive bed. Tiles being set in the adhesive bed should be connected to the next inner course of tiles, but need not be connected to each other.
- B. Once tiles are laid into the wet adhesive, roll the floor with a 75-100 pound flooring roller. Adhesive should be allowed to cure for 24 hours before walking on the tile.

### VIII. INSTALLATION – ADA RAMP

- A. Cut away any protruding Base-Lock material
- B. Sweep area clear and vacuum up all dust.
- C. Dry lay ramps and make appropriate cuts before opening the adhesive.
- D. To cut the ramps, use a band saw or a saber saw with 7-10 TPI wood cutting blade.  
Note: The toe edge of the ramp contains a wire reinforcement material. Take care not to bend the edges as it will be difficult to get ramps with bent reinforcement to lay flat.
- E. Mark the areas where adhesive is to be applied and temporarily remove the ramps.
- F. Spread the recommended urethane adhesive using a 1/8" square notch trowel.  
Do not spread more adhesive than can be covered in 30 minutes.
- G. Carefully place the ramps into the adhesive. Be sure to press down firmly to assure proper adhesive transfer to the back side of the ramp or roll with a 75-100 pound three sectional flooring roller.
- H. Use weight to evenly hold down the toe edge of the ramps. The entire toe edge should be weighted, and the weight should be heavy enough to prevent the edge of the ramps from lifting out of the adhesive.

**Note:** Adhesive spills must be removed **while still wet**. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits, followed by a rag dampened with water. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

- I. After 24 hours, remove the weight from the ramps.
- J. Clean and maintain the area in accordance with the instructions in the Maintenance Section below.



## I. FULLY ADHERED INSTALLATION - Mandatory for Exterior Installations

- A. Follow the site layout instructions to prepare the site area for installation. The tiles, accessories, and substrates should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

**NOTE:** Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

**NOTE: Amarco Products' Mega-Tile is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.**

NOTE: Use a 1/8" square notch trowel. Coverage rates for the adhesive are approximately 60 square foot per gallon using a 1/8" square notch trowel.

- B. For fully adhered installations, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If the levels exceed the limitations, the installation should not proceed until the situation has been corrected.
- C. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
- D. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
- E. Using a 1/8" square notch trowel, apply the adhesive out slightly wider than the tile being placed. Do not spread more adhesive than can be covered in 30 minutes.
- F. **Base-Locks must be used; see Base Lock installation section above.**
- G. Place tiles with Base Locks into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive in a similar manner.
- H. After placing tiles into adhesive bed, roll the tiles with a 75 pound three section flooring roller to ensure adhesive transfer to the back of the tile feet.
- I. Adhesive should be allowed to cure for 24 hours before allowing foot traffic. All heavy traffic and/or light rolling loads should be avoided for a minimum of 72 hours after installation to allow adhesive to develop strength. In cases where 72 hours is not possible, it is recommended to cover the floor with a rigid covering such as 1/2" plywood sheeting with a fully sanded face against the surface of the tiles.
- J. Tile cuts are typically laid out by referencing dimensions from the edges of the tiles, already in position, to a wall or other obstruction along or around which the tiles are to fit. These dimensions are then transferred to and laid out on the tile to be cut.
- K. Ramps installed at corners should be miter cut to allow ramps to fit together properly.



## **IMPORTANT INFORMATION FOR THE INSTALLER**

Proper protection and maintenance of 1” Mega-Tile post-installation should be specified by the architect/designer. Amarco Products Mega-Tiles are not pre-coated with a factory finish; therefore, they should not be subject to construction debris and potential damage caused from heavy-duty construction activities.

### **FLOOR PROTECTION**

The specifier should include specification details to protect the floor post-installation and until job construction is complete, such as covering the entire floor with paper or other floor covering device (plastic, plywood, etc.) until construction is completed and thorough cleaning and maintenance can be implemented.

### **ASSIGNMENT OF CLEANING AND MAINTENANCE**

The specifier should determine and assign the responsibility for the initial cleaning and finishing. This responsibility should be specifically assigned to the flooring contractor, general contractor, maintenance contractor, or owner.

The recommendations contained in this manual are listed, because of their extensive testing and field experience with Mega-Tile. These instructions are given only as guidance to our customers and for use with our recommended tools and adhesives. Amarco Products cannot accept any responsibility for loss or damage that may result from the use of this information due to variations in working conditions and/or workmanship of the installer. Users are advised to conduct their own tests for a particular application and assign installers that are familiar with this type of flooring product.

Inspect all tiles for visual defects including shade variances prior to beginning installation. No labor claim will be honored on material installed with visual defects or shade variations. It may be necessary to lay out and hand select tiles for color consistency. Any discrepancies must be reported immediately before beginning the installation. Ensure that all job site and subfloor conditions are met.

## **I. CLEANING PROCEDURES**

### **1. Initial Cleaning**

- a. Remove all surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming with a high CFM vacuum. For large areas, use auto scrubbers to clean floors.
- b. Scrub floor with a neutral cleaner (10 oz. /gal. of water), using buffer or auto scrubber with a soft nylon brush or pad per table above. Avoid flooding the floor.
- c. Pick up solution with a wet vacuum. Rinse with clean water, picking up the rinse water with a wet vacuum and allowing it to dry thoroughly (6-8 hours).

### **2. Daily/Regular Cleaning**

- a. Sweep, dust mop, or vacuum floor to remove surface soil, debris, sand, and grit.
- b. Damp mop with a microfiber mop or auto-scrub with a neutral cleaner diluted (2-4 oz./gal. of water) and pad per table above.
- c. Mop again with clean water to remove residue.

### **3. Restorative Maintenance**

- a. Sweep and dry vacuum floor thoroughly.
- b. Heavy scrub floor with Amarco Cleaner. This cleaning may be performed with an auto scrubber or rotary scrubber with pad per table above.
- c. Vacuum soiled solution with a wet/dry vacuum.
- d. Rinse with clean water.
- e. Pick up solution with wet vacuum.
- f. Allow floor to to dry thoroughly (6-8 hours).
- g.

### **4. Heavy Soil**

- a. Remove surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming.
- b. Scrub floor with a neutral cleaner using a buffer or auto scrubber with pad per table above.
- c. Pick up solution with a wet vacuum, rinse with clean water, and allow to dry thoroughly (6-8 hours).



**Amarco Products (the “Seller”) warrants that the Mega-Tile surfacing system will be free from defects in materials and workmanship.**

***What does the warranty cover?***

- Surface wear due to ordinary abrasion from pedestrian traffic will not penetrate the wear course of the surface.
- The tiles, when installed according to the manufacturers’ specifications, will ensure the surface remains fixed and functional.

***How long does the warranty coverage last?***

This is a 5 year limited warranty, prorated as outlined in the warranty coverage schedule shown below. This warranty may be transferred with the property.

***What will we do?***

Any segment of an Mega-Tile surface that meets the warranty criteria will be repaired or replaced, at the Seller’s option and in conjunction with the warranty coverage schedule below.

***How do you submit a warranty claim?***

A warranty claim should be made directly to the Seller. Make claims via telephone by calling 866-688-6287. Please provide the following information: a description of the claimed defect and the date the defect was discovered, photographic images (if applicable) of the claimed defect, the date of the original installation, the project name and your name, address, and phone number. The Seller will provide notification of any additional information and physical evidence that may be required to process your claim.

***Warranty Exclusions***

This warranty does not cover:

- Product failure caused by accidents, misuse, natural disaster, vandalism, improper installation, or maintenance and the like (see installation, care, and maintenance instructions).
- Color change caused by exposure to UV and/or normal abrasion from pedestrian traffic.
- Failure due to improper sub-surface preparation.
- Resilient flooring may suffer visible damage as a result of extreme high forces (up to 2,000 pounds per square inch). Common contributors to this type of force include, but are not limited to, stiletto or high heels, and narrow tipped chair supports. Mega-Tiles are not designed to perform under such concentrated high pressure.

Amarco Products will not accept claims for damage caused by extreme high forces.



***Additional Considerations:***

- The Seller's liability is limited to the material and transportation costs of repair or replacement of the product at the Seller's option. The Seller shall be responsible for installation costs and the costs of other work in connection with such repair and replacement only if such work was performed by Seller in the original installation. Where Mega-Tile is installed only in high traffic areas or installed in combination with other surfacing products not sold by the Seller, such MegaTiles are excluded from this warranty.
- In the event of repair, replacement, or refinishing under this warranty, the warranty applicable to the replacement material or to the repaired or refinished products will extend only for the time remaining under the original warranty.
- The Seller reserves the right to discontinue or change any design or color of any products at any time and without notice or liability. If, for any reason, products of the type originally purchased are no longer available at the time a warranty claim is made, Seller may substitute another product determined by Seller to be of comparable quality and price.
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- Your exclusive remedy for any breach of warranty is as set forth in this warranty. This warranty gives you specific legal rights. You may have other rights which vary from state to state and province to province.
- **The MegaTile warranty shall not cover dissatisfaction due to improper installation, damage from improper maintenance or usage, or general misuse, including and without limitation: burns, cuts, tears, scratches, scuffs, damage from rolling loads, damage from cleaning products not recommended by Amarco Products, slight shade variations or shade variations due to exposure to direct sunlight, or differences in color between samples or photographs and actual flooring.**