Installing Marmoleum Modular & MCT Flooring

- Always refer to and follow the recommendations in ***Forbo's General Installation Guidelines*** prior to installing Marmoleum Modular and MCT flooring.
- Always refer to and follow the recommendations in ***Forbo's Substrate Evaluation and Preparation Guidelines*** prior to installing Marmoleum Modular and MCT flooring.
- Always refer to and follow the recommendations in ***Forbo's Adhesive Technical Data Sheets*** for the adhesive being used for the installation.
- Beginning the installation is an implied acceptance of site conditions and liability for any failure directly related to inadequate site conditions becomes the responsibility of the installer and/or flooring contractor.
- Marmoleum Modular and MCT flooring may be installed on approved substrates on all grade levels.
- Store Marmoleum Modular and MCT cartons unopened.
- Use Forbo T 940, Sustain 1195, Sustain 100, or Forbo 660 adhesive.
- Use the trowel recommended in ***Forbo's Adhesive Technical Data Sheets*** for the Forbo adhesive to be used for the installation. Replace the trowel blade when proper coverage is no longer attainable.
- Use material from the same batch/dye lot.
- Do not remove more tile from the carton than can be installed in approximately 1 hour.
- Install cartons in consecutive order.
- Marmoleum Modular and MCT in the square format have a directional pattern and should be installed in alternating directions (quarter turned). Marmoleum Modular in the rectangular format can be installed in any direction. The tolerance in the sequence of carton numbers should not exceed 100. Tolerance in the sequence of carton numbers for 10" x 10" (25 cm x 25 cm) should not exceed 200.
- To avoid shading throughout the installation, it is recommended to shuffle tiles from several cartons.
- Do not allow heavy traffic or rolling loads for a minimum of 72 hours following the installation. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to cure.
- Wait a minimum of five days following the installation before conducting initial cleaning. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.
- Forbo does NOT recommend the application of adhesive tape on Marmoleum. Adhesive tape may cause damage to the factory coating of resilient flooring products. When using floor protection materials, tape the seams of the floor protection together and secure the floor protection by weighing down in corners and against walls. DO NOT secure floor protection materials by taping them directly to the surface of resilient floor coverings.
- Take pride in your work and be Professional at all times.
- For additional information, contact Forbo's Product Support & Education Services at 1-800-842-7839 or www.forboflooringNA.com.

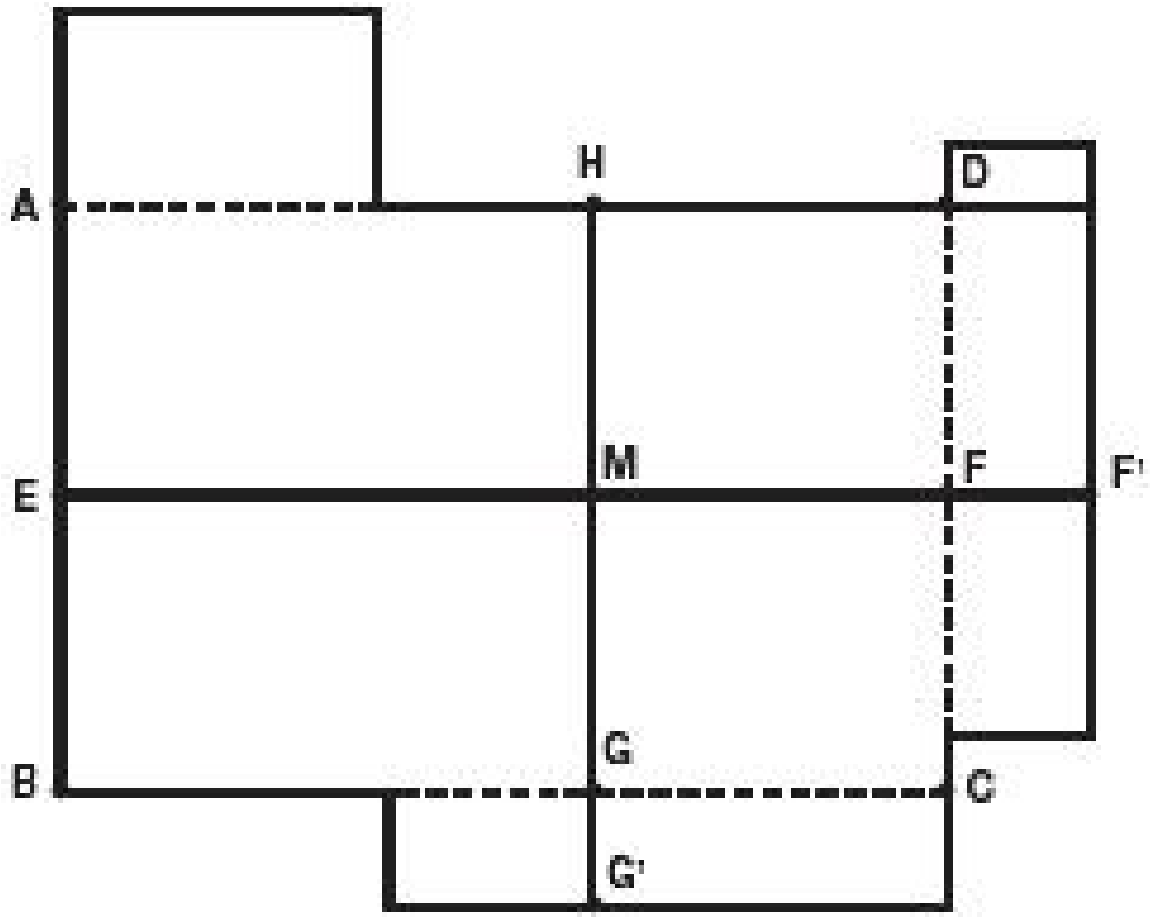
Layout

Marmoleum Modular and MCT flooring products are fit using conventional tile fitting techniques.

It is customary to start from the center of the room. In corridors and small spaces, it may be simpler to work lengthwise from one end, using the center line as a guide.

The center line is drawn as follows (Figure 1): A chalk line is snapped from center of wall A/B (Point E) to the center of wall C/D (Point F). The center of line E/F is found (Point M). Draw a perpendicular line through Point M using the 3:4:5 method to establish G/H.

Starting at Point M, measure out lengthwise and widthwise to the walls to make sure you will have at least a half of a tile at the border. Adjust lines E/F and G/H if necessary.



Installation

- After establishing the starting lines, spread the adhesive using the trowel recommended on the Technical Data Sheet for the adhesive being used in the installation.
- Be sure to spread adhesive all the way to the starting line without leaving any voids.
- Begin laying tiles at the starting point, ensuring that the tile is placed exactly along the layout lines. If the first few tiles are not installed accurately, the entire installation will be affected.
- The tiles must be installed into wet adhesive. Do not spread adhesive in an area larger than can be installed while ensuring 100% wet transfer to the backing of the material.
- The open time and working time of adhesives will vary depending on site conditions such as ambient temperature and humidity, the porosity of the substrate and air circulation. It is the installer's responsibility to make adjustments to specific conditions as may be necessary to ensure 100% wet adhesive transfer to the material backing. A general indication of proper open time is when a light touch produces transfer of adhesive to the finger, but a firm touch will flatten and "smear" the adhesive. For additional information, refer to ***Forbo's Adhesive Technical Data Sheets***.
- A short open time will be necessary. The adhesive should be allowed to develop body before placing the flooring material into the adhesive, but **DO NOT ALLOW THE ADHESIVE TO DRY**.
- Check for adhesive transfer frequently. There must be **100% wet** transfer of adhesive to the material backing in order to achieve a secure bond. 100% wet transfer is a continuous film of adhesive, when wet, on both the backing of the material and the substrate with no trace of trowel marks or ridges. The flooring material **must remain in contact with the adhesive while the adhesive is drying and curing.**
- Immediately roll the flooring in all directions using a 100 lb. roller to ensure proper adhesive transfer. Additional rolling is required during adhesive setup to ensure that the material is flat and fully adhered.
- The use of a three-section wall roller or steel seam roller is required at walls, under toe kicks or anywhere the full weight of a 100 lb. roller cannot access or be applied.
- Proper tile placement and rolling will result in a complete "explosion" of the trowel ridges, creating a continuous flat film of adhesive. Complete transfer of the tile backing will appear as only the impression of the tile backing in the surface of the adhesive. No standing trowel ridges should be visible.
- The time it takes to mark and cut the border tiles must be considered when planning the installation. Without adequate planning, the working time of the adhesive around the perimeter may be exceeded before the tiles are installed. This will result in an inadequate bond of the perimeter tiles. Always plan the sequence of spreading adhesive so that the perimeter tiles can be cut and placed into the adhesive before the adhesive working time has been exceeded.
- Remove fresh adhesive residue immediately with a clean white cloth. Dried adhesive can be removed with a clean white cloth and Forbo Adhesive Remover. If this is not available, a solution of properly diluted neutral pH cleaner may be used. The area should then be rinsed with clean, cool water to remove all residues from the floor.

  NOTE: If using Forbo 660 adhesive, refer to ***Forbo's 660 Adhesive Technical Data Sheet*** for additional information.

Tile Edge Curl

Tile edge curl is often indicative of an installation failure. Marmoleum Modular and MCT flooring products are an all-natural wood-based product. Like other wood-based flooring products, improperly installed Marmoleum can be affected by extreme changes in the ambient relative humidity. When exposed to excessively low ambient relative humidity, the edges of tiles which are **NOT FULLY BONDED** may exhibit a tendency to curl along one or both length edges. This is an INSTALLATION FAILURE, not a material defect. This installation failure is avoided by following the installation recommendations and by properly using the recommended Forbo adhesive.

Marmoleum Modular and MCT flooring products that are set into wet adhesive and thoroughly rolled in all directions with repeated rolling during the course of the installation will achieve proper transfer to the substrate and remain flat and fully bonded. Curled edges will lay completely flat and will be well bonded. Proper tile placement and rolling will result in a complete "explosion" of the trowel ridges, creating a continuous flat film of adhesive. Complete transfer of the tile backing will appear in the surface of the adhesive. NO trowel ridges should be evident.

What is Ambering?

Ambering is the slight yellow hue to Marmoleum when it is first removed from the packaging. This is a natural phenomenon that happens with Marmoleum and is completely normal. Linseed oil, a natural oil extracted from flax seeds and one of the main ingredients in Marmoleum is what causes this yellow hue. This very important ingredient in Marmoleum provides several unique characteristics:

- Linseed oil, along with wood flour, makes the floor naturally antistatic, repelling dust, making Marmoleum easy to clean.
- When exposed to air and light, the linseed oil oxidizes from within the Marmoleum and continues for the life of the product. This makes the material harden over time and become more durable.

As time passes, the ambering will fade as Marmoleum is exposed to light, but its unique characteristics will not. The process may take as little as a few hours in bright sunlight, but it can take longer with artificial light. Areas that are not exposed to any light will retain the yellow hue until they are exposed to light. If an area of Marmoleum is covered for an extended period, it's possible the yellow hue will re-appear. Don't be alarmed – it will fade once again when it's exposed to light.

Because this is a natural occurrence in the product, there is no set time frame for the yellow hue to fade. This is not a material defect. It's actually a sign that Marmoleum is revealing its unique and valuable characteristics! Performing floor care procedures will not inhibit the process. It just takes a little bit of time and understanding what great benefits this process brings to Marmoleum! All colors of Marmoleum are subject to ambering, however it can be more noticeable in certain colors. Light blues, greens, greys, and beiges will display a more visible yellow hue than darker colors. To discover the true color of Marmoleum, follow these few simple steps:

1. Take a piece of Marmoleum and cover one half with heavy paper, cardboard, or another piece of Marmoleum.
2. Place these pieces in direct sunlight for approximately 1 hour.
3. After the time has passed, remove the cardboard or heavy material and see the visual difference first hand.

Forbo's General Installation Guidelines contain additional information and are available for download at www.forboflooringNA.com. For additional information, contact Forbo's Product Support & Education Services at 1-800-842-7839.