

General Installation Guidelines

Jobsite Conditions

- Areas to receive material should be clean, fully enclosed and weather tight. The permanent HVAC should be fully operational and controlled and set at a minimum temperature 65° F (18.3° C). If this is not possible, the areas should be acclimated and controlled by means of temporary HVAC to the service level conditions expected during occupancy. The temperature and humidity should range from 75° F ± 10°F (23.9° C ± 5.5° C) with a 50% ± 10% ambient relative humidity. These conditions **MUST** be established at least seven days prior to beginning the installation, maintained during the installation, and continued for at least seven days following the installation.
- Substrate evaluation and preparation should not begin until a stable, conditioned environment has been established as described in this section.
NOTE: Site conditions can dramatically affect the performance of the adhesive. Temperature, ambient relative humidity, substrate porosity and air circulation will determine the open, working and curing time of the adhesive. Not respecting these limits can result in an installation failure.
- Areas to receive flooring must have adequate lighting to allow for proper inspection and preparation of the substrate, installation of the flooring and final inspection.
- Installation should not begin until the work of all other trades has been completed, especially overhead trades.
- Substrates to receive Forbo flooring products must be structurally sound, rigid, smooth, flat, clean, and permanently dry. The substrate must be free of all foreign materials including, but not limited to, dust, solvent, paint, wax, oils, grease, residual adhesive, adhesive removers, film-forming curing compounds, silicate penetrating curing compounds, sealing, hardening or parting compounds, alkaline salts, excessive carbonation or laitance, mold, mildew, and other foreign materials that might affect the rate of moisture dissipation from the concrete, the adhesion of flooring to the concrete or cause a discoloration of the flooring from below.
- Ensure that all recommendations for substrates as described in the **Substrate Evaluation and Preparation section** of the Forbo Installation Guide are met prior to beginning 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.
- Always conduct adhesive mat bond tests as described in the **Adhesive Mat Bond Testing section** of the Forbo Installation Guide before beginning the installation. Bond testing will aid in identifying both the working characteristics of the adhesive, such as the appropriate open and working time for the site conditions, and also any potential bonding problems to the substrate.
- Always conduct moisture tests on **ALL** concrete substrates, regardless of age or grade level. For additional information, please refer to the **Moisture Testing section** of the Forbo Installation Guide.
- Determine the moisture vapor emission rate (MVER) of the concrete by testing conducted in strict accordance with the latest version of ASTM F 1869. The MVER of the concrete must not exceed the requirements of the Forbo adhesive being used. Refer to the **Adhesives section** of the Forbo Installation Guide for adhesive specifications.
- Determine the internal relative humidity of the concrete by testing conducted in strict accordance with the latest version of ASTM F 2170. The internal relative humidity of the concrete must not exceed the requirements of the Forbo adhesive being used. Refer to the **Adhesives section** of the Forbo Installation Guide for adhesive specifications.
- The concrete surface pH must be tested and must not exceed the requirements of the Forbo adhesive being used. Refer to the **Adhesives section** of the Forbo Installation Guide for adhesive specifications.
- 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. For additional information, refer to the **Adhesives section** of the Forbo Installation Guide.
- Take pride in your work and be Professional at all times.

General Installation Guidelines

Material Storage & Handling

- Areas where materials are to be stored must be a stable and conditioned environment as described in the **Jobsite Conditions section** of the Forbo Installation Guide.
 - Avoid excessive heat or cold. Protect all materials from freezing and store indoors at temperatures ranging from 65° – 95° F (18.33° - 35.0° C).
 - All materials (flooring, adhesives, welding rod, wall base, installation accessories) should be acclimated to these conditions for a minimum of 48 hours prior to installation.
 - Material should be delivered to the job site in original, unopened packaging, with all labels intact.
 - Store all rolls standing upright (with the exception of Coral®), labels up, and ensure that the color, roll and batch numbers can be easily read.
- NOTE: Forbo sheet products may be shipped laying on a pallet. To avoid damage to the material, stand the rolls upright for storage immediately once received (with the exception of Coral®).**
- Sheet materials should always be stored and transported rolled face out on a heavy tube and wrapped for protection.
 - Marmoleum® and linoleum sheet rolls must be stored standing upright. This includes Walton, Bulletin Board and Desktop.
 - Marmoleum® Modular cartons should be stacked no more than 5 cartons high for the 9.8" x 9.8" (25 cm x 25 cm) tiles, 9.8" x 19.69" (25 cm x 50 cm) planks or 9.8" x 39.37" (25 cm x 100 cm) planks and no more than 10 cartons high for the 19.69" x 19.69" (50 cm x 50 cm) tiles.
 - MCT cartons should be stacked no more than 9 cartons high.
 - Allura® cartons should be stacked no more than 6 cartons high for the 39.4" x 5.9" (100cm x 15cm) planks, no more than 15 cartons high for the 47.2" x 7.9" (120 cm x 20 cm) planks, no more than 18 cartons high for the 59.1" x 11" (150 cm x 28 cm) planks, no more than 18 cartons high for the 70.9" x 11" (180 cm x 32 cm) planks and no more than 16 cartons high for the 19.7" x 19.7" (50 cm x 50 cm) planks.
 - Allura Flex® cartons should be stacked no more than 12 cartons high for the 39.4" x 7.9" (100 cm x 20 cm) planks, no more than 11 cartons high for the 47.2" x 7.9" (120 cm x 20 cm) planks, no more than 18 cartons high for the 59.1" x 11" (150 cm x 28 cm) planks and no more than 12 cartons high for the 19.7" x 19.7" (50cm x 50 cm) planks.
 - Colorex® SD/EC cartons should be stacked no more than 18 cartons high.
 - Flotex® sheet rolls must be stored standing upright.
- NOTE: Storing Flotex® sheet rolls laying down can result in pile crush. Forbo will not honor claims relating to pile crush if the rolls were stored laying down.**
- Flotex® Modular cartons should be stacked no more than 16 cartons high.
 - Coral® sheet rolls should be stored laying flat.
 - Coral® Modular cartons should be stacked no more than 7 cartons high.
 - Marmoleum® Wall Panels should always be stored laying flat.
 - Material must always be visually inspected prior to installation. If there are any questions regarding the quality of material, contact your local Forbo representative or Forbo's Product Support & Education Services **PRIOR** to installation.
- NOTE: Any costs (including labor) associated with the replacement of material that was installed with visual defects that could have been seen prior to installation are not covered under warranty.**

General Installation Guidelines

Installation Direction & Sequence

- All material should be from the same batch. If material from more than one batch is to be used, the job should be planned so that different batch numbers are not installed side by side.
- Optimal color and shade match for all Forbo sheet flooring products is achieved only when seaming the trimmed factory edge to trimmed factory edge with the sheets oriented in the recommended direction.
NOTE: When installing Flotex® sheet products, butt factory edges for seaming.
- When installing sheet products, install all rolls in consecutive order. Follow Forbo's specified tolerances during sequencing to avoid shading throughout the installation. Cuts from individual rolls should be installed in the sequence from which they are cut from the roll.
- When installing modular products, install cartons in consecutive order. Follow Forbo's specified tolerances during sequencing and shuffle tiles from several cartons to avoid shading throughout the installation.

Marmoleum® & Linoleum products

- When installing Marmoleum® & linoleum sheet products, all sheets must be installed in the same direction. Always install rolls in consecutive order. Follow Forbo's specified tolerances during sequencing to avoid shading throughout the installation.
- For Marmoleum® Real, Vivace, Fresco, Decibel, Concrete, Sport, Ohmex, Linoflex and MCS, the tolerance in the sequence of roll numbers should not exceed 50.
- For Marmoleum® Striato, Piano and Graphic, the tolerance in the sequence of roll numbers should not exceed 20.
- For Walton, Bulletin Board and Desktop, the rolls must be installed 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" should not exceed 200.
- Marmoleum® Click has an interlocking system and must all be installed in the same direction, with material from the same batch.

Project Vinyl Products

- All Forbo sheet vinyl products must be installed with adjacent sheets reversed *except* Eternal Wood. Eternal Wood **MUST** be installed with all sheets in the same direction.
- For Eternal Material and Wood, the tolerance in the sequence of roll numbers should not exceed 50.
- For all Eternal Step products, the tolerance in the sequence of roll numbers should not exceed 20.
- Colorex® SD/EC tile must be installed with arrows on the back running in the same direction, with material from the same batch.
- Allura and Allura Flex must be installed with all arrows on the back running in the same direction, with material from the same batch.

Flotex® High Performance Carpet products

- When installing Flotex® sheet products, all sheets must be installed in the same direction and all rolls must be installed in consecutive order.
- Always install Flotex® sheet and monolithic tile installations lengthwise in corridors.
- Flotex® Modular has a directional pattern which may be installed either with the arrows running in the same direction, alternating directions (quarter turned) or in opposite directions (half turned). Always confirm the recommended Flotex® Modular installation direction before beginning the installation. For additional information, refer to the **Installation: Flotex® Modular Flooring section** of the Forbo Installation Guide. All material installed should be from the same batch and the same dye lot.

Coral® Entrance Flooring

- The pile of Coral® Entrance Flooring has a directional pattern and must be installed with the arrows in the same direction. All rolls must be installed in consecutive order.
- Coral® Duo should be installed with the lines running perpendicular to the traffic direction.
- Coral® Modular must be installed with all arrows on the back in the same direction, with material from the same batch.



General Installation Guidelines

Third Party Products

Third party products may be required in the installation and care of Forbo products. Forbo does not manufacture these products and their performance is beyond Forbo's control. Forbo does not offer recommendations for the use of these products. Instructions for the proper use and application of such products should come from their manufacturer. Any warranty for their performance is the responsibility of that manufacturer. Forbo does not test or evaluate products manufactured by others for performance, compatibility or any other quality. Such inquiries must be directed to the manufacturer of the product. It is the user's responsibility to investigate and research the performance characteristics and warranty information for any product being considered for use.

Any mention in the Forbo Installation Guide of products not manufactured or supplied by Forbo does not constitute an endorsement or warranty of those products by Forbo. Any such mention of third party products is intended for the sole purpose of establishing a comparative standard of quality and should not be interpreted as suggesting that those products are the only products suitable for a particular purpose. There may be other third party products available that are equally suitable.

Forbo's Installation Guide contains additional information and is available for download at www.forboflooringNA.com. For a hard copy, or for additional information, contact Forbo's Product Support & Education Services at 1-800-842-7839.