

Forbo MarmoSecure Tile Adhesive Technical Data



Recommended for Use With

- Marmoleum Modular, Marmoleum Composition Tile (MCT)

Specifications

- Forbo MarmoSecure Tile Adhesive is a **dry-set** adhesive
- FloorScore Certified by SCS Global Services
- SMP (Silane Modified Polymer) with biobased content
- Isocyanate Free
- Non-flammable
- Storage: Do **NOT** Freeze. Store at minimum temperature of 65° F (18.3° C) and a maximum of 95° F (35° C).
- Shelf life: 12 months in unopened container
- Appearance and Odor: Black color that dries translucent black with little to no odor
- VOC Emissions: 0 grams per liter (calculated per CA South Coast Rule 1168)
- Spread Rate: Approximately 200 square feet per gallon with a 1/32" x 1/16" x 1/32" U notch trowel.
- Testing in accordance to the latest versions of ASTM F 1869 and ASTM F 2170 is not required.
- The surface pH of the concrete must be between 7.0 and 12.0.
- Tolerant up to 100% internal relative humidity.
- Forbo MarmoSecure Tile Adhesive is 66% USDA Certified BioBased
- Available in four-gallon units only.

Substrate & Testing Requirements

- Always refer to and follow the recommendations in Forbo's Substrate Evaluation and Preparation Guidelines and General Installation Guidelines prior to installing Marmoleum Modular with MarmoSecure Tile Adhesive.
- Forbo MarmoSecure Tile Adhesive can be used on all grade levels of concrete, approved suspended wood floors, and approved existing resilient floors. All concrete substrates must be prepared in strict accordance with the conditions set forth in the latest version of ASTM F 710. The substrate must be dry, clean, smooth, and structurally sound.
IMPORTANT! Forbo MarmoSecure Tile Adhesive can be used on both old and new concrete substrates. While Forbo MarmoSecure Tile Adhesive is suitable for use over substrates where no vapor retarder is present, it is **NOT** recommended for use on any substrates demonstrating symptoms of or with a history of moisture related issues. Forbo MarmoSecure Tile Adhesive is not warranted against issues of hydrostatic pressure, water intrusion, water table related issues, or catastrophic flooding. In situations exhibiting or with pre-existing issues of flooring failure where no vapor retarder is present, Forbo recommends consulting with a concrete specialist to advise on the most appropriate remedial measures to render the substrate suitable to receive commercial resilient flooring. For additional information, contact Forbo's Product Support and Education Services.
- The concrete surface must be free from any condensation or standing water.
- The surface pH of the concrete must be between 7.0 and 12.0. Concrete surfaces with pH readings of less than 7.0 or above 12.0 will require remediation prior to installation.
- Conduct adhesive mat bond tests by adhering a 3' x 3' test sample of flooring material, following Forbo's installation guidelines, in various locations throughout the area where flooring is to be installed. Conduct adhesive mat bond testing **before** beginning the installation. Adhesive mat bond testing can help identify potential bonding problems and is essential for ensuring the integrity of the flooring system prior to the installation. Adhesive mat bond tests should be conducted using the adhesive(s) and material(s) to be used on the project **after** all remediation and/or preparation work has been completed. Conduct testing on the final prepared substrate. This includes any patching or leveling compounds that may be in use. Spread Forbo MarmoSecure Tile Adhesive using a 1/32" x 1/16" x 1/32" U notch trowel and allow the correct gel time based on-site conditions. The adhesive **must** be fully gelled before installation begins. To test this, press a finger firmly into the adhesive, holding for two seconds, then lift. Fully gelled adhesive will **not** provide wet transfer. A slight residue may be noticed when touching, however the adhesive will not displace under pressure from the finger. Install the material into the gelled adhesive and roll with a 100 lb. roller to ensure full adhesive transfer. Proper placement and rolling will result in a complete impression of the material backing in the gelled adhesive. When correctly used, Forbo MarmoSecure Tile Adhesive will provide significant bond strength immediately after installing the material. The adhesive will continue to build further bond strength as the polymers cure. Upon removal of the test sample, a complete imprint of the material backing must be seen in the gelled adhesive. Because the adhesive polymers will bond tenaciously, when removing material, the adhesive layer may tear apart with some adhesive remaining on the substrate and some adhesive on the material backing. Removal of the material should require significant force when fully cured and will cause damage or stress to the material.
The number of mat bond tests should be appropriate for the project and be representative of each type of substrate, including trenches and grade. The number may also be determined by the responsible party or specified by the end user, general contractor and architect, or flooring contractor.

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Adhesive bond testing will also identify the effects of the site-specific conditions that will influence the gel time of the adhesive. Be sure to conduct mat bond tests on **ALL** substrates. Wait a minimum of 72 hours before removing the test squares.

Installation Recommendations

1. 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 should range from 75° F ± 10° F (23.9° C ± 5.5° C) with a 40% – 60% 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.
2. The substrate must be free of all foreign materials including, but not limited to, dust, solvent, paint, wax, oil, 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 quality of bond to the substrate.
3. Trowel recommendation: Only use a 1/32" x 1/16" x 1/32" U notch trowel. Replace the trowel when proper coverage is no longer attainable. At a minimum, replace the trowel with each new pail of adhesive.
4. Place reference marks for layout prior to applying adhesive. Forbo MarmoSecure adhesive dries translucent, so reference lines will be visible.
5. When spreading the Forbo MarmoSecure Tile Adhesive, it is recommended to pour no more than 1 gallon of adhesive onto the substrate at a time. It is important to keep the 1/32" x 1/16" x 1/32" U notch trowel in constant contact with even downward pressure onto the substrate while spreading. **DO NOT** allow the trowel to float or lose contact with the substrate during the spreading process. Spreading the adhesive unevenly or leaving thick areas of adhesive on the substrate will directly affect the gel time and reduce the spread rate of the adhesive. Following the initial spread onto the substrate, the adhesive will remain wet. During this time, the adhesive trowel ridges will level out, leaving a continuous flat layer of adhesive on the floor. If the adhesive does not level out, check for a dirty or worn trowel and replace the trowel if necessary.
Note: With a proper spread, the adhesive will be translucent with no dark areas.
6. If the thickness of the adhesive, ambient temperature, and ambient relative humidity of the space are not within the recommended ranges, the gel time of Forbo MarmoSecure Tile Adhesive will vary. Press a finger firmly into the adhesive, holding for two seconds, then lift. Fully gelled adhesive will not provide wet transfer. A slight residue may be noticed when touching, however the adhesive will not displace under pressure from the finger.
7. **IMPORTANT!!** Once the adhesive is fully gelled, the flooring **MUST** be installed **and rolled** within four (4) hours.
Note: Forbo MarmoSecure Tile Adhesive has a very strong initial grab and the repositioning of the flooring once laid into the adhesive may be difficult. If it is necessary to reposition the flooring once laid, the use of a new tile may be required.
8. Immediately roll the flooring in all directions using a 100 lb. roller to ensure that flooring is in complete contact with the adhesive. Additional rolling is required during installation to ensure that the material is flat and fully adhered.
9. 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.
10. Check the adhesive periodically while rolling for imprint from the backing of the tile; a **full imprint** from the backing of the tile **must be visible** to achieve a secure bond.
11. Remove any adhesive residue immediately using a clean white cloth dampened with mineral spirits, followed by rinsing with clean, cool water to remove any residue from the floor.
12. Keep trowels clean when not being used by scraping any excess adhesive off the trowel and then thoroughly cleaning using a clean rag dampened with mineral spirits. Ensure that all adhesive has been cleaned from the teeth of the trowel before the adhesive has cured on the trowel.
13. Keep the lid on the pail when not in use.
14. Once flooring has been installed and properly rolled, the flooring can immediately be damp mopped and occupied.
15. The adhesive will continue to cure and build bond strength. Wait a minimum of five (5) days following the installation before conducting wet cleaning procedures or initial maintenance. Additional time may be necessary is the installation is over a non-porous substrate.

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