

FORBO EZ-ON 100™ ADHESIVE TECHNICAL DATA

RECOMMENDED FOR USE WITH:

- Marmoleum® Modular, Marmoleum® Modular Striato, Marmoleum® Composition Tile (MCT)

SPECIFICATIONS:

- FloorScore Certified by SCS Global Services
- Moisture Cured Urethane
- 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: 2 years in unopened container
- Appearance and Odor: Tan color that dries clear with little to no odor
- VOC Emissions: Low VOC
- Spread Rate: Approximately 250 square feet per gallon
- Available in four-gallon units only
- No moisture testing as per the latest version of ASTM 1869 or ASTM 2170 is required when using Forbo EZ-ON 100™ Adhesive



SUBSTRATE & TESTING REQUIREMENTS:

- Forbo EZ-ON 100™ Adhesive can be used on all grade levels of concrete. 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 EZ-ON 100™ Adhesive can be used on both old and new concrete substrates. While Forbo EZ-ON 100™ 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 EZ-ON 100™ Adhesive is not warranted against issues of hydrostatic pressure, water intrusion 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 who may be able 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 dry and free from any condensation or standing water.
- The surface pH of the concrete must not exceed a pH of 12.0. Concrete surfaces with pH readings less than 7.0 or above 12.0 will require remediation prior to installation.
- Conduct adhesive mat bond testing before beginning the installation. Adhesive mat bond testing can 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. Testing shall be conducted on the final concrete substrate profile or assembly as it will exist at the time of installation. This includes any patching or leveling compounds that may be in use. Spread Forbo EZ-ON 100™ Adhesive using a 1/16" x 1/32" x 1/32" fine notch trowel and allow the correct open time-based on-site conditions. It is required to allow the adhesive to fully gel. Fully gelled adhesive will not provide wet transfer when touched with a finger. A slight oily residue may be noticed when touching, however the adhesive will not displace under pressure from the finger. Install the material and roll with 100 lb. roller to ensure proper adhesive transfer. Proper placement and rolling will result in a complete impression of the material backing into the face of the gelled adhesive. When properly used, Forbo EZ-ON 100™ 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, the imprint of the material backing should be seen on the face of the adhesive. Because the adhesive polymers will bond tenaciously to all substrates, 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. Conduct adhesive mat bond tests by adhering a 3' x 3' area of material, following Forbo's installation guidelines, in various locations throughout the area where flooring is to be installed. Although the number of tests required may vary, enough tests should be performed to allow an evaluation of the entire area where material will be installed. A good rule of thumb is one mat bond test for every 1,000 square feet. This will help identify the effects of the site specific conditions that will influence the open time and working time of the adhesive. Be sure to conduct mat bond tests on **ALL** substrates.

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INSTALLATION GUIDELINES:

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 $\pm$ 10° F (23.9° C $\pm$ 5.5° C) with a 40% - 65% 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. Thoroughly stir the adhesive before use.
IMPORTANT! The adhesive **MUST** be mixed mechanically using a drill. The drill should be operated at low speed and *IN REVERSE*. Using the mixing paddle in this way will pull material up from the bottom of the pail rather than pulling material exposed to the air from the top down, entrapping air. The low speed limits air entrapment into the adhesive.
4. Trowel recommendation: 1/16" x 1/32" x 1/32" fine notch trowel. Replace the trowel when proper coverage is no longer attainable.
5. Spread the Forbo EZ-ON 100™ Adhesive onto the floor. The adhesive will self-level as it sets up on the substrate.
6. The open time and working time of Forbo EZ-ON 100™ Adhesive will vary depending on the ambient temperature and ambient relative humidity of the space. If any of these factors fall outside of the recommended ranges for use, the gel time of the adhesive will be affected. Follow the chart below for open time (shown in hours) and working time (shown in minutes). Fully gelled adhesive will not provide wet transfer when touched with a finger. A slight oily residue may be noticed when touching, however the adhesive will not displace under pressure from the finger.
IMPORTANT! When the adhesive is touched at the optimal open time, no wet transfer of adhesive to the finger should occur, although there will be a slight oily residue noticed on the finger. As the adhesive cures, this residue will dissipate.

Relative Humidity							
Temperature			OPTIMAL RANGE				
	30%		40%	50%	60%	70%	80%
	60°F (16°C)	Open = 100 min. Work = 6 hrs.	Open = 90 min. Work = 6 hrs.	Open = 80 min. Work = 6 hrs.	Open = 75 min. Work = 6 hrs.	Open = 72 min. Work = 5.5 hrs.	Open = 70 min. Work = 5 hrs.
	70°F (21°C)	Open = 92 min. Work = 6 hrs.	Open = 82 min. Work = 6 hrs.	Open = 72 min. Work = 5.5 hrs.	Open = 70 min. Work = 5.5 hrs.	Open = 65 min. Work = 5.5 hrs.	Open = 62 min. Work = 5 hrs.
	80°F (27°C)	Open = 85 min. Work = 6 hrs.	Open = 75 min. Work = 5.5 hrs.	Open = 65 min. Work = 5.5 hrs.	Open = 62 min. Work = 5 hrs.	Open = 60 min. Work = 4.5 hrs.	Open = 58 min. Work = 4 hrs.

7. Once the Forbo EZ-ON 100™ Adhesive has fully gelled, the flooring may be installed. Be sure to use reference marks to lay out flooring, as the Forbo EZ-ON 100™ Adhesive has a very strong initial grab and the repositioning of the flooring once laid into the adhesive may be difficult.
8. Immediately roll the flooring in all directions using a 100 lb. roller to ensure that flooring has made 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. Remove any adhesive residue immediately with a clean white cloth with Forbo Adhesive Remover or mineral spirits. The area must then be rinsed with clean, cool water to remove all residue from the floor.

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11. Keep trowels clean when not being used by scraping any excess adhesive off the trowel and then thoroughly cleaning with a clean rag and Forbo Adhesive Remover or mineral spirits. Ensure that all adhesive has been cleaned from the teeth of the trowel. It is recommended to clean before the adhesive has cured on the trowel.
12. Keep the lid on the pail when not in use.
13. Once flooring has been installed and properly rolled, the flooring can immediately be cleaned and occupied.
14. While the flooring can immediately be cleaned and occupied, the adhesive will continue to cure and build bond strength. Allow for additional time before conducting wet maintenance.

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.