

Trilogy Tile

Installation

Conditions

Areas must be enclosed weather tight and conditioned at a constant ($\pm 5^{\circ}\text{F}$) service temperature that is between 60°F and 80°F with ambient relative humidity between 35% - 65%. Also, the substrate surface must be at least 5°F above dew point for 48 hours before, during, and for 24 hours after the installation.

Note: Dew point calculators are available on the web. Windows etc. must be covered during and for 24 hours after installation.

Preparation

I. Warnings

The Occupational Safety and Health Administration (OSHA) has exposure limits for those exposed to respirable crystalline silica. These limits must be followed. All Safety Data Sheets (SDS) must be read, understood and followed. All local, state and federal regulations must be followed. This includes but is not limited to the removal of in-place asbestos containing material.

II. Wooden Subfloors

Unless stated otherwise all wooden subfloors must be prepared in accordance with *ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring*. The substrate must be clean (without contaminates), dry ($\leq 8\%$ moisture content) and structurally sound and smooth enough for the project.

Wood floors must be double layer construction with a minimum total thickness of 1 inch. The subfloor must be rigid, free from movement, and have at least 18 inches of well-ventilated air space below. Sleepers must not be directly in contact with concrete or earth, and the ground beneath the subfloor must be covered by a suitable vapor retarder. Do not install directly over Masonite™, Lauan, fire retardant products, and particle or chip-board. The requirements of the "Smooth & Flat" section must also be met.

Note: Joints in plywood may show (mirror) through to the finished flooring as wood will expand and contract with changes in ambient humidity levels

III. Gypsum Subfloors

Gypsum substrates are not suitable for any "wet" areas; however, for areas that will remain dry, they can be acceptable. Unless stated otherwise, all Gypsum subfloors must be prepared in accordance with *ASTM F2678 Standard Practice for Preparing Panel Underlayments, Thick Poured Gypsum Concrete Underlayments, Thick Poured Lightweight Cellular Concrete Underlayments, and Concrete Subfloors with Underlayment Patching Compounds to Receive Resilient Flooring*. The requirements of the "Smooth & Flat" section must also be met.

Concrete Moisture

I. Vapor Retarder & Mitigation:

All on and below grade concrete slabs must have a confirmed and effective vapor retarder installed directly underneath the slab that meets the requirements of *ASTM E1745 Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete*

Slabs. If this cannot be confirmed then use a moisture mitigation system that conforms to *ASTM F3010 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings*. This system must be applied following the manufacturer's written instructions.

II. Moisture Limit:

Testing must be performed in accordance with the current ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes. The results must not exceed the following:

MI 1000 Adhesive, 90% RH used Semi-dry over non-porous substrates.

MI 1000 Adhesive, 95% RH used Semi-dry over porous concrete subfloors only.

III. Concrete Porosity

Test for porosity according to ASTM F3191 - Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring.

Note: The water droplet must be absorbed within 5 minutes to be considered porous. Diamond grinding (or similar) the concrete surface open to make it porous is acceptable.

IV. Concrete Subfloors

Unless stated otherwise, all concrete subfloors must be prepared in accordance with *ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*. The substrate must be clean (without contaminants), structurally sound and smooth enough for the flooring and end user. When required, use only commercial grade leveling or patching compounds with ≥ 3000 psi that also meet the moisture requirements of the subfloor. If the subfloor has standing water, hydrostatic pressure, ASR, or if chemical adhesive removers have been used, do not install; contact the Matter Surfaces Technical Department.

V. Underfloor Heating:

This is suitable, providing the adhesive line does not exceed 85°F, and the system is not used for 72 hours after the installation. When it is used, the temperature must not be increased by more than 5°F per day, or thermal shock may cause bond failure.

VI. Joints & Cracks:

No expansion joint or moving joint should be covered over or filled as subfloor movement may cause installation failure. Use a suitable industry standard expansion joint assembly system as required.

VII. Leveling & Patching Compounds:

If required, meet the "Smooth & Flat" requirements (below), using a commercial grade (≥ 3000 psi) suitable leveling underlayment or suitable patching compound, following the manufacturers written instructions and limitations. These must also meet the given moisture level and allow it to cure/dry before proceeding.

VIII. Other Subfloors

For all other subfloor/substrates contact Matter Surfaces Technical Department.

IX. Smooth & Flat

All substrates should be both smooth (ridge-free) and with a minimum flatness and gradient tolerance of $\leq 3/16$ -inch over 10-ft.

X. Layout

Follow the detailed layout drawing provided or agreed upon by the architect, designer or end user.

XI. Cleaning Substrate

Clean the prepared substrate using only suitable dustless vacuum cleaners to remove all dirt and debris.

Installation Instructions

I. Tools

Personal protective equipment (PPE) – HEPA filtered vacuum – tape measure – straight edge – pencil – 1/32-inch x 1/16-inch x 1/32-inch U-notch trowel (FFA) – utility knife with straight blades – thermo-hygrometer – 100-lb. three section roller – Infrared thermometer – camera phone.

II. Acclimatization

Store the flooring within the required area, which must be fully enclosed from the weather. The conditions must be at a constant ($\pm 5^{\circ}\text{F}$) service temperature that is also between 68°F and 80°F with ambient relative humidity between 35% - 65% for at least 48 hours before acclimatization begins and for 72 hours after installation. The substrate must also be at least 5°F above the dew point.

The boxes must be stored flat (without stacking), for at least 24 hours before installation, for acclimatization.

Note: Windows etc. must also be covered for 2 hours prior, during, and for 24 hours after installation.

III. Inspection

If the wrong product or product with obvious defects or other damage has been shipped, do not install it. Contact Matter Surfaces immediately. Use tiles from the same batch only, in any area and randomly shuffle before installing.

IV. Adhesive Application

First, ensure the area is clean (HEPA filtered vacuum). Measure out and mark your start lines which must be followed before the application of the adhesive.

MI 1000 Adhesive: This adhesive must be used as a “Dry-to-the-touch” adhesive only. Apply using a 1/32 inch x 1/16 inch x 1/32 inch U-notched trowel (FFA). The adhesive must be applied at an angle of approximately 60° to the prepared substrate without voids or puddles. Do not make any sharp turns with the trowel to avoid an uneven application of the adhesive. Do not re-notch trowels; replace them as required.

Note: Do not apply adhesive to an area that cannot be installed within two hours.

V. Installation

Note: Allow the adhesive to become “Dry-to-the-touch” and the matting must be installed within two (2) hours after it has become “Dry-to-the-touch”. Do not allow the adhesive to become contaminated with dust or anything else; if it does, remove and apply fresh adhesive.

Carefully place the tiles into the adhesive bed following your start lines continuing until the area is completed including the perimeter cuts. After the area has been installed, immediately roll the entire area using a three section 100 lb. roller.

VI. Finish

Clean up all debris, take photographs, protect the flooring from traffic if required and have the end user sign a “Job Completion Ticket”.