



Commercialon® High RH Modular Tile and LVT Adhesive High Moisture, Pressure-Sensitive Modular Tile & LVT Adhesive

DESCRIPTION

Commercialon® High RH Modular Tile and LVT Adhesive is a high-moisture-resistant, heavy-rolling-load-resistant, aggressive, pressure-sensitive adhesive with enhanced dimensional control properties designed to install a wide variety of resilient flooring types.

FEATURES AND BENEFITS

- Pressure-sensitive
- Solvent-free
- Environmentally friendly

WHERE TO USE

- Interior residential (rental apartments, condominiums, and homes)
- Interior commercial (office buildings, hotel rooms and hallways, and restaurant dining areas)
- Interior heavy commercial (hotel lobbies, convention centers, airports, and department stores)
- Interior institutional (hospitals, schools, universities, libraries, and government buildings)

LIMITATIONS

- Do not install over substrates containing asbestos.
- For interior installations only
- Install flooring only in areas that are recommended by the flooring manufacturer.
- Do not install into wet adhesive over non-porous substrates.
- Do not apply directly over any adhesive residues, including cutback adhesive.
- Do not install in areas with known hydrostatic moisture, osmotic blistering, or alkali silica reaction conditions.
- Use only when the substrate temperature is between 65°F and 90°F (18°C and 32°C).
- Do not install unless the surface temperature of the substrate is 10°F (5°C) above the dew point.
- Do not install when the moisture vapor emission rate (MVER) using the anhydrous calcium chloride test (ASTM F1869), the relative humidity (RH) of the concrete slab (ASTM F2170), or the pH exceeds the limits listed in the table below.

Application Type	MVER	RH%	pH Range
Pressure Sensitive Installations (Luxury Vinyl Plank/Tile Only)	15 lbs	99%*	7.0 - 12.0



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SUITABLE SUBSTRATES

- Fully cured concrete at least 28 days old and installed according to ASTM F710 (see Limitations" section)
- Exterior-grade plywood, Group 1, CC type and other approved wood substrates (per the flooring manufacturer's recommendations)
- Properly prepared, and fully bonded VCT or vinyl floor covering (single layer) that is over a year old and adhered with a full spread application of adhesive
- Embossing levelers applied over existing, properly prepared, and fully bonded ceramic, or porcelain tile
- Properly prepared cement terrazzo
- Exterior rated cement-based self-leveling underlayments and patching compounds (per manufacturer recommendations)
- Properly prepared, primed gypsum underlayments that meet the requirements for compressive strength according to ASTM F2419
- Properly prepared and installed MAPEI epoxy moisture mitigation systems
- Radiant-heat systems that have been properly installed that are maintained at a maximum of 85°F (29.4°C) surface temperature.

Consult Engineered Floors' Customer Relations Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- All substrates must be structurally sound, dry, solid, and stable.
- Substrate should be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded top pings, loose particles, old adhesive residues, and any other substance or condition that may affect the overall performance of the product.
- Substrates must be flat to 3/16" in a 10-foot span (4.8 mm in a 3.0 m span). Fill all holes or cracks using a high moisture rated cement-based self-leveling underlayment or patching compound.

MIXING

- Ready to use. No mixing necessary.

Note: Choose all appropriate safety equipment before use. Refer to Safety Data Sheet (SDS) for more information.



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PRODUCT APPLICATION

Read to the flooring manufacturer's guidelines for acclimation requirements and complete installation instructions. Read all installation instructions thoroughly before installation. Install flooring in strict accordance with the flooring manufacturer's written instructions.

1. Select the appropriately notched trowel (1/32" x 1/16" x 1/32") and spread the adhesive evenly over the subfloor, keeping the trowel at a 45° angle to the subfloor.
2. Allow adhesive to completely dry with no transfer to finger when touched. For working time and flash time, see the "Application Properties" chart below. Protect the open adhesive from dust and debris, which will inhibit proper bond and decrease tack.
3. Once the flooring is installed, immediately roll flooring with the recommended-weight roller across the width and length of the flooring surface.

CLEAN UP

- Promptly clean any adhesive smudges from the flooring material's surface with water while the adhesive is still fresh/wet.
- Clean tools with water while the adhesive is still fresh/ wet. Clean with mineral spirits once dried. Use caution with mineral spirits, which may be harmful to some materials.

PROTECTION

- Protect the finished installation from light traffic for at least 6 hours and from heavy traffic for at least 24 hours.
- Building owners should become aware of the flooring manufacturer's guidelines for climate- control settings (temperature and humidity). These conditions must be monitored and kept constant to ensure the overall performance and long-term success of the installation.

PRODUCT PERFORMANCE PROPERTIES

Laboratory Tests	Results
Percent Solids	45 to 65%
VOC's (Rule #1168 of California's SCAQMD)	<50 g per L
pH	8 to 10
Density	7.5 to 9.2 lbs. per US gal. (0.9 to 1.1 g per mL)
Flash point (ASTM D56)	212°F (100°C)



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SHELF LIFE and PRODUCT CHARACTERISTICS

Laboratory Tests	Results
Shelf Life	12 months when stored in original, unopened packaging at 73°F (23°C)
Conditions	Store at 65°F to 90°F (18°C to 32°C)
Polymer Type	Acrylic Based
Consistency	Paste
Color	Off-White

PROTECT FROM FREEZING

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 48 hours before work begins.

APPLICATION PROPERTIES AT 73°F (23°C) AND 50% RELATIVE HUMIDITY

Installation Type	Flash Time †	Working Time † †
Pressure Sensitive Installations	30 to 60 minutes	Up to 4 hours

† Flash time is the recommended amount of time for a freshly applied adhesive to remain exposed to the air before the installation of a floor covering.

†† Working time is the maximum amount of time that an adhesive can remain exposed to the air and still effectively bond to the floor covering.

Note: Flash time and working time vary based on temperature, humidity, substrate porosity, trowel size, and jobsite conditions.

PACKAGING

Size
4 Gallon (15.1 L)



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APPROXIMATE COVERAGE

Flooring Type	Typical Trowel	Coverage
Luxury Vinyl Tile and Modular Flooring	1/32" x 1/16" x 1/32" (0.8 x 1.6 x 0.8 mm) U-notch trowel	185 to 250 sq. ft. per 1 U.S. gal. (4.5 to 6.1 m ² per L)

** Trowel dimensions are depth/width/space. Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, type of trowel used and setting practices.

RELATED DOCUMENTS

Refer to the SDS for specific data related to health and safety as well as product handling.



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DISCLAIMER FOR COMMERCIALON® HIGH RH MODULAR TILE AND LVT ADHESIVE

Commercialon® High RH Modular Tile and LVT Adhesive has been formulated for the installation of Luxury Vinyl Plank/Tile in elevated Relative Humidity concrete substrate conditions up to 99% (ASTM F2170). For a full warranty it is essential to allow the adhesive to completely dry to a pressure-sensitive state before flooring installation occurs. It must be noted that while the adhesive is warranted to maintain a bond to the flooring and substrate in these elevated RH conditions it is not and must never be considered a substitute for a moisture mitigation system. This adhesive is designed to be used only on concrete substrates that meet ASTM F710 (Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring) and ACI 302.2R-06 (Guide for Concrete Slabs that Receive Moisture Sensitive Flooring Materials) both of which require the placement of an impervious vapor retarder/barrier beneath the concrete substrate. The vapor retarder/barrier shall be intact and meets ASTM E1745 standard. Note that if the presence of an intact vapor retarder/barrier underneath the concrete substrate cannot be confirmed then moisture mitigation or continued slab drying is required prior to installation. The use of this adhesive as a corrective measure for an existing moisture related flooring failure will void the warranty.

When using Commercialon® High RH Modular Tile and LVT Adhesive in elevated moisture conditions, the use of an exterior rated patch or self-leveler is required to maintain the bond warranty. The concrete substrate surface must be porous, free of dust, debris, paint, chemical contaminants, adhesive residue, concrete sealers or topical curing agents. The pH of the concrete substrate surface must be below 12.0 when Commercialon® High RH Modular Tile and LVT Adhesive to install Luxury Vinyl Plank/Tile.

NOTE: When Commercialon® High RH Modular Tile and LVT Adhesive is applied on wet or semi-wet adhesive installations the concrete substrate limitations revert to 95% Relative Humidity (ASTM F2170), 12 lbs. per 1,000 sq. ft. (4.54 kg per 92.9 m²) per 24 hours of moisture vapor emission rate (MVER), when using the anhydrous Calcium Chloride test (ASTM F1869), and a pH below 11.0.

FURTHER WARRANTY RESTRICTIONS INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

- Concrete substrate with moisture vapor emission rate (MVER) that exceeds 15 lbs. per 1,000 sq. ft. (6.80 kg per 92.9 m²) per 24 hours, when using the anhydrous Calcium Chloride test (ASTM F1869).
- Concrete substrate less than 28 days old.
- Concrete substrate with highly polished or burnished non-porous surfaces.
- Concrete substrate without a functioning vapor barrier system that meets ASTM E1745.
- Concrete substrate with known hydrostatic moisture, visible presence of water or water droplets, osmotic blistering, alkali-silica reaction problems, or has been flooded.
- The floor covering manufacturer limitations regarding concrete substrate moisture conditions (RH, ASTM 2170 & MVER, ASTM 1869), pH and others supersede Commercialon® High RH Modular Tile and LVT Adhesive recommendations.
- High moisture-related issues such as mold, mildew, and air quality.