



MavCrete UM

Trowel Applied Heavy-Duty Polyurethane Concrete

TECHNOLOGY DESCRIPTION

Maverick flooring and coating products are formulated with the goal of maximizing human safety and protecting the environment. All Maverick systems are available with EPA Approved Antimicrobial additives. We use Eco Friendly raw materials; low environmental impact manufacturing and we offer recyclable packaging options.

PRODUCT DESCRIPTION

MavCrete UM is a Heavy-Duty seamless flooring system typically installed at 1/4" – 3/8" in thickness. MavCrete UM is extremely tough and withstands thermal shock, impact, abrasion, and chemical exposure. MavCrete UM is formulated with an anti-microbial additive to be resistant to Fungi Growth per ASTM G-21.

TYPICAL PROPERTIES AT 70°F

Compressive Strength (ASTM C-579)	7,800 psi
Tensile Strength (ASTM C-307)	975 psi
Flexural Strength (ASTM C-580)	2,100 psi
Bond Strength (ASTM D-4541)	100% Concrete Failure
Impact Strength, in/lbs. (ASTM D-4226)	>160 in-lb.
VOC Content	5 gm/l
Resistance to Fungi Growth (ASTM G-21)	Passes, Rating of 1

The data shown above reflects typical results based on laboratory testing under controlled conditions. Variations from the data shown may result. Test methods are modified where applicable.

INSTALLATION DATA

Application Temperature, ambient	40-85°F
Application Temperature, material	50-80°F
Shelf Life	6 months
Pot Life, @ 77°F	15 minutes
Traffic, @ 77°F	Light: 6 hours / Full: 24 hours

IMPORTANT INFORMATION

1. MavCrete UM is not color stable, expect color change over time.
2. MavCrete flooring should not be installed on wet concrete.
3. Floors should be sloped to drain to prevent standing water or chemicals.
4. Spills should be removed as soon as possible to prevent a slipping hazard.
5. Confirm product performance in specific chemical environment prior to use.
6. Prepare substrate according to "Surface Preparation" portion of this document.
7. Follow detailed instructions in the "MavCrete Application Guide"
8. Always use protective clothing consistent with OSHA regulations during use.
9. Refer to Safety Data Sheet for detailed safety precautions.
10. For industrial/commercial use. Installation by trained personnel only.

TECHNICAL DATA SHEET

BENEFITS

- Seamless, hygienic finish; no grout joints
- Impact & abrasion resistant surface
- Low odor, fast installation, fast cure
- Excellent corrosion & chemical resistance
- High temperature resistant to 250 F
- Thermal shock resistant; steam cleanable
- Anti-slip surface, meets ADA recommendations
- Resistant to moisture vapor transmission (MVT)
- Resistant to fungi growth per ASTM G-21

RECOMMENDED USES

- Meat, Poultry and Seafood Plants
- Dairy Plants
- Beverage and Bottling Facilities
- Chemical process Facilities
- Pharmaceutical Facilities
- Wet Processing & Packaging areas
- Commercial Kitchens
- Breweries and Wineries

GENERIC DESCRIPTION

Polyurethane Concrete Flooring

TYPICAL APPLICATION

1/4" Trowel Applied Monolithic Floor

AVAILABLE COLORS

Red, Dark Red, Gray, Dark Gray, Tan, Green, Blue, Light Blue, Safety Yellow

PACKAGING & COVERAGE

Part A and B liquids are packaged in 1/2 gallon jugs, 5 gallon pails and 250 gallon totes

Unit equals: 1/2 gallon Part A + 1/2 gallon Part B + 1 Graded Aggregate + 1 Powder Pigment

22 sqft/unit for a 1/4" finished floor

SURFACE PREPARATION

Concrete: Apply only to properly prepared clean, dry, and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases, or any other contaminants.

- *New concrete should ideally be cured for a minimum of 14 days to reduce possible shrinkage cracking in the concrete. MavCrete can be installed after 7 days or when concrete reaches a minimum 3,500 psi compressive strength which will allow for proper surface preparation, however, early curing movement, shrinkage or cracking that may occur in the concrete will be reflected through the final MavCrete flooring.*
- *Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.*
- *Remove any laitance or weak surface layers including broom finish surface.*
- *Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.*
- *Surface profile shall be CSP-5 or greater meeting ICRI (International Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 40-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.*
- *All concrete surface irregularities, cracks, expansion joints, control joints and terminations should be properly addressed and prepared prior to application of the flooring. Moving joints and cracks will reflect through the final installed MavCrete flooring.*

Refer to “MavCrete Application Guide” for more details.

INSTALLATION STEPS

IMPORTANT – Follow the detailed application instructions in the “MavCrete Application Guide” and the safety instructions listed on the product Safety Data Sheets (SDS) copies available upon request. The following installation summary is for reference only and should not be relied upon as all inclusive. MavCrete systems should only be installed by trained persons experienced in polyurethane concrete flooring applications.

1. To prevent lifting or delamination, keyways (minimum 5/16" wide x 5/16" deep) must be cut at all terminations, joints, columns, doorways, and drains. See MavCrete construction detail drawings.
2. Clean sand and dust from prepared concrete where the floor is to be installed.
3. *Option:* Use MavCove CB Cove Base material to install a cove and/or base as required. The cove/base can be installed before or after the installation of the MavCrete UM depending on the specification and or the desired result. The MavCove CB can be used to create a simple cant cove as well.
4. It is very important to utilize a proper mixer and paddle to ensure a complete mix and to reduce the risk of introducing excessive air into the mixture. Maverick recommends the use of a MAN-U-FAB M-61 (1 HP) mixer with a 10 gallon pail and TR4-10 mixing arm. www.mixall.com
5. With the mixer running, pour 1/2 gallon Part A into the pail.
6. Add 1 Powder Pigment to Part A and mix about 15 seconds.
7. Add 1/2 gallon Part B and mix another 15 seconds.
8. Gradually add all contents of a MavCrete UM Filler aggregate into the liquid mixture and blend thoroughly until all particles are wetted out, normally about two minutes.
9. Immediately after mixing (within 3 minutes), spread the mixed MavCrete UM onto the floor at a thickness slightly greater than the desired finish, using a screed box or move by hand trowel.
10. Trowel the surface lightly, using a steel finish trowel to smooth the surface. Finish trowel strokes should all be in the same direction. Do not over overwork the mortar. The material should be troweled to a finished thickness of 1/4" to 3/8", for thicknesses greater than 1" add 25 lbs. of clean, dry 3/8" pea gravel to the mixture to help reduce the heat generated during cure.
11. Immediately roll the surface lightly in no more than two passes with a mohair roller. Excessive rolling or use of loop roller will reduce slip resistance.
NOTE: Late or heavy rolling may induce pinholes.
12. Lay abutting edges within 10 minutes to ensure a clean edge. A “wet edge” installation is imperative during large placements to avoid lines and ridges in the finished floor.

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