

Perdüre UMC

(SL, TG, & CO)
Polyurethane modified concrete

DESCRIPTION

Perdüre UMC is a three-component urethane modified cementitious flooring system formulated to withstand harsh and demanding environments. It combines the most demanding performance characteristics – resistance to impact, abrasion, chemicals and thermal attack. A urethane (polyurethane) binder is combined with Portland cement and graded aggregates to deliver superior performance characteristics. This unique combination of urethane-cement and graded aggregates makes the flooring system resistant to high levels of moisture vapor transmission. It can be installed with integral cove base for areas requiring sanitary seamless wall to floor transition.

ADVANTAGES

- Excellent adhesion to various substrates – concrete, quarry tiles, brick pavers and plywood
- Formulated for installation ease and quick turn around
- Very low odor-can be used in occupied areas
- Breathable flooring system – withstands high levels of moisture vapor transmission
- Does not support the growth of fungus or bacteria
- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents
- Superior impact and abrasion resistance
- Natural textured surface provides anti-slip surface
- Can be applied over partially cured concrete slabs
- Minimal maintenance costs, superior life cycle cost advantage versus tile
- Meets USDA and FDA standards
- Zero VOC

SUBSTRATE REQUIREMENTS

- Should be applied when temperature is between 40°F and 85°F
- Site must be free from condensation or water contamination during application and cure
- Concrete substrate must be free of dirt, waxes, curing agents, and other foreign materials
- All control joints and expansion joints in the substrate must be revealed with the appropriate divider strips in the topping
- Movement of substrate cracks may transmit through the system

TYPICAL USES

- Food processing areas
- Bottling areas
- Manufacturing facilities
- Commercial/Industrial kitchens
- Pharmaceutical areas
- Cook/Chill areas
- Plant vehicle aisles
- Sanitize / Wash areas
- Warehouses
- Laboratories

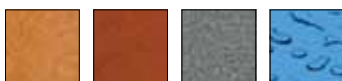
TYPES / GRADES

Perdüre UMC is available in three different forms.

Perdüre UMC-SL is a seamless self-leveling, medium to heavy duty, solid colored, three-component, urethane modified cementitious flooring system designed to provide excellent resistance to abrasion, impact, and chemical attack. Perdüre UMC-SL can be broadcasted to increase surface texture and slip resistance. Perdüre UMC-SL is typically applied at 3/16" to 1/4" in thickness.

Perdüre UMC-TG is a trowel grade, heavy duty, solid color, three-component, urethane modified cementitious flooring system designed to provide excellent resistant to thermal stree, abrasion, impact and chemical attack. Perdüre UMC-TG can be installed with an integral cove base requiring seamless wall to floor coatings.

Perdüre UMC-CO is a three-component, solvent-free, high build, colored coating system based in the cementitious urethane technology. It is typically installed a primer and/or topcoat for Perdüre UMC broadcast textured finishes. It can be applied also to refresh existing cementitious urethane flooring at a fraction of the original cost. This system is typically installed at al 10mil thickness.



INSTALLATION

Priming

Priming of concrete substrates is not usually required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations. Usually Perdüre UMC-SL systems require priming whereas Perdüre UMC-TG do not require priming.

Mixing Perdüre UMC

- a. Add equal parts of Part 1 and Part II to mixer and blend for 30 seconds. Add the pigment pack (except for neutral color used with quartz) to the Part 1 prior to mixing.
- b. Add Part III slowly to the mix (while mixer is running) and allow to blend for 3-4 minutes. Be sure to “wet-out” all parts of mix, scraping sides and bottom of mixer powder. Mixing bucket and mixer or blades should be scrapped out thoroughly and cleaned with solvents (acetone, MEK or xylene) every few batches or working time on subsequent batches may be shortened. If mixing in a plastic bucket dispose of the bucket after every 3-4 mixes and replace with a clean bucket.

Note: Set up the mixing station as near to the work area as possible. Exothermic heat will be generated and flash setting may occur if material remains in the pail too long. Do not mix more than can be used in 10 minutes.

Application

- a. Pour the mixed material on the floor and spread with a gauged straight edge (gauge rake set 1/16” higher than desired thickness), flat trowel or 1/2” V-notched trowel (for application rate of 40ft²/kit). A “V-notched” trowel will not level without a loop roller. Always maintain a wet edge.
- b. Back-roll the surface lightly with a loop roller while material is still wet. To minimize marks in the finished system, the contractor should wear spiked shoes while walking on the wet material. Keep roller cleaned with isopropyl alcohol.
- c. For Perdüre UMC-TG system, broadcast silica sand to excess into the batch of material immediately after loop rolling. Allow to cure minimum 8 hours. Sweep and vacuum excess granules, apply recommended topcoat(s) as required.

For complete installation instructions, contact your Düramen representative.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with Xylene or MEK. Consult MSDS for safety and health precautions.

COVERAGE

Perdüre UMC-SL – 30ft² @ 3/16” thickness
Perdüre UMC-TG – 18-20ft² @ 1/4” thickness
Perdüre UMC-CO – 100ft² @ 12-12 mil thickness

COLOR SELECTION

Perdüre UMC is available in Light Grey, Dark Grey, Tan, Red and Green. Custom colors are available subject to laboratory approval, minimum quantity, lead time for production, and increased cost.

AVAILABILITY

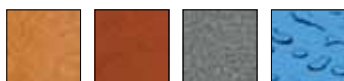
Perdüre UMC is available throughout the United States and Canada. Contact Düramen representative in your area for details.

MAINTENANCE

After completing the application of Perdüre UMC, the installer should provide the owner with maintenance instructions. If floors become slippery due to animal fats, oil, grease, or soap film, clean and rinse thoroughly. Perdüre UMC is easily cleaned with neutral soaps or detergents. Routine mechanical scrubbing is recommended for all surfaces having a non-skid texture. Waxing is optional. Long periods of heavy traffic may cause wear patterns necessitating application of a finish coat.

TECHNICAL SERVICE

Düramen Engineered Products, Inc. provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces.



düramen engineered products, inc.

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PERFORMANCE PROPERTIES

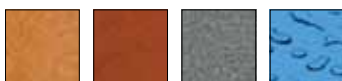
Flammability, ASTM D-635	Self Extinguishing
Fungus & Bacteria Growth, MIL-F-52505-4.4.2.11	Will not support growth of fungus or bacteria when subjected to mildew and bacterial tests
Hardness	85-90 Shore D
Bond strength to Concrete ACI COMM #403, Bulletin 59-43	400psi (100% concrete failure)
Flexural Strength, ASTM C-580	4,000psi
Coefficient of friction, ASTM D-2047	0.80
Water Absorption, ASTM D-570	Nil
Thermal Shock Resistance, ASTM C-84	Passes
Abrasion Resistance, ASTM C-501	32mg
Compressive Strength, ASTM C-579, 7 days	10,000psi
Tensile Strength, ASTM C-307	2,400psi
Density	125-130lb/ft ³
Thermal Coefficient of Expansion, ASTM C-531	2 X 10 ⁻⁵
Cure Time	10-12hr foot traffic / 24hr full service

TECHNICAL DATA

Pot Life	10-15 minutes
Dry to Touch	6-8 hours @ 75°F
Re-Coat (regular cure)	10-12 hours @ 75°F
Full cure, max. resistance	1 day (24hr)

WARRANTY

Dūraamen Engineered Products, Inc. warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed and applied in accordance with recommendations of Dūraamen. If any product fails to meet this warranty, the liability of Dūraamen will be limited to replacement of any non-conforming material if notice of such non-conformity is given to Dūraamen within (1) one year of delivery of materials. Dūraamen may in its discretion refund the price received by Dūraamen in lieu of replacing the material. No customer, distributor or representative is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of Dūraamen. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. Dūraamen reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. DÜRAAMEN'S OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND DÜRAAMEN SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY OTHER THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.



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