



Urethane Concrete Self Leveling

DESCRIPTION

Morriscite UC 1010 is a three component, self-leveling novel water-based urethane cementitious system. It is engineered to provide superior high impact resistance, thermal shock stability, chemical resistance, abrasion and hot oil resistance. It can be applied with a pin rake, screed rate or flat trowel.

The system is typically installed at minimum of 3/16" thickness and broadcast with decorative quartz to yield a 1/4" to 3/8" thickness and seal finish floor.

TYPICAL USES

- Food processing plants
- Dairies, Milk process areas
- Meat, fish, poultry packing plants
- Commercial kitchens
- Freezers & coolers
- Chemical processing / refineries
- Locker & shower rooms
- Pharmaceutical manufacturing
- Pulp & paper processing
- Warehouses

ADVANTAGES

- Easy to apply
- Long term durability
- Economical
- Rapid cure
- Hot cooking oil and steam resistant
- Abrasion & impact resistant
- No joints to harbor bacteria
- Stress relieving
- Faster installation
- Chemical resistant
- Easy to clean

TYPICAL PHYSICAL PROPERTIES

Color:	Light Gray, Dark Gray, Red	
Cure Time @77°F +/- 2°F:	Recoat	6-8 hours
	Foot Traffic	10-12 hours
	Light Traffic	4 days
	Full Cure	7 days
Hardener, Shore D	ASTM D2240	75-85
Tensile strength:	ASTM C307	600-700 psi
Compression strength:	ASTM C579	5,500 psi
Flexural strength:	ASTM C580	2,200 psi
Impact resistance:	MIL-D-3134	withstands 16ft lbs without cracking
Adhesion:	ACI 503R	>300 psi concrete failure
Water absorption:	ASTM C413	<0.1%
Anti-fungal Growth:	ASTM G21	Passes
Coefficient of thermal expansion:	ASTM C531	1.1 x10 ⁻⁵ °F
Coefficient of friction:	ASTM D1894-61T	Steel 0.3 Rubber 0.5

PACKAGING

Component A:	Pre-measured unit
Component B:	Pre-measured unit
Component C	45 lbs. in a bag (powder)

SURFACE PREPARATION

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, form oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by any appropriate mechanical means in order to achieve a profile equivalent of ICRI-CSP 3. The compressive strength of the concrete substrate should be at least 3,625 psi (25 MPa) at 28 days and a minimum of 218 psi (1.5 MPa) in tension at the time of application. Contact MTT Technical Sale for a recommendation.

MIXING AND APPLICATION

Components A: B: C:

- **MIX FULL UNIT ONLY, DO NOT MIX PARTIAL UNITS.**
- Pre-mix Morricite UC 1010 A (resin). Add Morricite UC 1010 B (hardener) into a clear mixing bucket. Mix with low speed drill and jiffy mixer for 30 – 35 seconds. Add Morricite UC 1010 C (powder), slowly over a period of 25 seconds. Allow component C to blend well for at least 2 – 2 1/2 minutes. Blend material until no lumps remain. Immediately pour mixed material on substrate and pull out using a pin rake, screed rake or flat trowel. Place all materials within 15 minutes. Back roll with a loop roller to assist leveling. Allow material to self-level.
- Broadcast silica sand and/or ceramic color quartz sand to saturation (about 400 lbs. per 1,000 square foot) for a unique decorative finish.
- Allow to cure for a minimum of 5-6 hours before sweeping excess. Allow more time at temperatures below 55°F.

LIMITATIONS

Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, Ambient and Surface Temperature and Dew Point. During installation, confirm and record above values at least once every 3 hours, or more frequently whenever conditions change (e.g. Ambient Temperature rises/falls, Relative Humidity increases/decreases, etc).

Material Temperature: Precondition material for at least 24 hours between 65° to 75°F (18° to 24°C).

IMPORTANT: Product must be protected from freezing. If frozen, discard.

Ambient Temperature: Minimum/Maximum 50° / 85°F (10° / 30°C).

Substrate Temperature: Minimum/Maximum 50° / 85°F (10° / 30°C). Substrate temperature must be at least 5°F (3°C) above measured Dew Point.

Mixing and Application attempted at Material, Ambient and / or Substrate Temperature conditions less than 65°F (18°C) will result in a decreased product workability and a slower cure rate.

Relative Ambient Humidity:

Minimum ambient humidity 30%.

Maximum ambient humidity 85% (during application and curing).

WARRANTY INFORMATION

Values stated herein are typical values based on periodic testing and product experience. MTT DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THOSE OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. Where customer demonstrates non-conformance of product to typical values stated herein, MTT will, supply replacement product or, at its discretion, credit customer's account for the purchase price of non-conforming product. Recommendations herein as to the surface preparation, application, maintenance, and other matters involving storage, handling, or use of product are based on the best information available. Because MTT has no control over such matters, or over substrate or other conditions that may affect ultimate performance, customer has the obligation to determine suitability of product for the intended purpose. MTT SHALL HAVE NO RESPONSIBILITY FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES BUT ONLY FOR THE REPLACEMENT OR CREDIT MENTIONED ABOVE. All claims for replacement or credit must be made within one year from date of shipment. The sale and purchase of product from MTT are subject in each case to MTT's terms and conditions of purchase.

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