



# KOSTER UC 100

Technical Data Sheet CT 251 007

Issued: 01-19-16

## Self-leveling urethane cement flooring system

### Features

KOSTER UC 100 is a self-leveling, three-component aromatic urethane cement system. It is a pigmented, medium duty slurry applied flooring system. KOSTER UC 100 is typically applied between 1/8-in and 3/16-in thick. It is designed to withstand chemical attack and thermal shock while providing high abrasion resistance.

### Technical Data

Property	Data
Mixing ratio	Pre-measured 3 component kit
Pot life, 70°F	15 – 20 min
Dry time, 70°F	6 to 8 hr
Spread rate	50 sq ft/kit at 1/8-in
VOCs	0

### Physical Properties:

Property	Test Method	Result
Hardness (Shore D)	ASTM D-2240	80D
Compressive Strength	ASTM C-579	9000 psi
Tensile Strength	ASTM D-638	2100 psi
Flexural Strength	ASTM D790	5000 psi
Adhesion to Concrete	ASTM D-4541	>400
Impact Resistance	ASTM D-2794	>160
Water Absorption	ASTM D-570	≤0.04 %
Flame Spread	ASTM E-684-14	Class I, NFPA 101
Abrasion Resistance	ASTM D-4060	50 mg loss
Coefficient of Friction	ASTM D-2047	0.7 (wet) 0.8 (dry)
Gloss (60 Degree)	ASTM D-523	10-15

### Fields of Application

- Chemical processing plants
- Food processing plants
- Cooking/chilling areas
- Pharmaceutical plants
- Bakeries
- Cage wash areas
- Vehicle aisles in warehouses
- Manufacturing/production areas
- Warehouses
- Sanitizing/washing areas
- Bottling Areas

### Substrate

Substrates to receive KOSTER UC 100 must be sound, solid, profiled, and free of materials or contaminants that may act as bond breakers. ICRI CSP 3-4 is required.

### Application

#### Mixing:

KOSTER UC 100 is delivered as a three-component kit. Each kit

includes: A component (resin), B component (hardener), and C component (cement and aggregate). Do not mix this product in direct sunlight or when temperatures exceed 90°F. Ensure all components are between 50°F and 90°F. Exposure to high temperatures will greatly reduce the working time. Make sure all necessary tools, mixing and measuring containers, etc are ready. Do not mix until ready for use. Transfer the A component into a 5 gallon bucket. Add the B component. Mix the A and B component with an electric high speed drill (800 rpm) with a 4 - 5-in. Jiffler or dispersion mixing paddle for approx. 10-15 seconds. Then, gradually add the C component over a period of 30 seconds. Once the entire C component has been added, mix for approx. 45 seconds until a homogenous consistency is achieved. Do not mix for longer than 90 seconds in total. While mixing, move the blade back and forth, up and down scraping the bottom and sides of the pail. Thorough mixing is mandatory. A properly mixed batch will have a nice flow, level well, and the surface will appear uniform. Incomplete mixing will cause an inconsistent finish or possible blistering. Spin-off or clean the mixing paddle and clean the mixing buckets regularly to avoid mixing fresh material with residues from prior batches. Apply the mixed material immediately. Mix only what can be applied in 15 minutes. Never attempt to re-temper the mortar after it begins to set.

#### Planning the application:

Proper planning is essential to ensure a seamless appearance of the finished floor. Cold joints will be visible in the finished floor. Lay out the installation in sections so that the full width of the area can be coated in 20 minutes or less to avoid placement lines.

#### Edge Details:

Cut keyways 1/8-in wide by 1/8-in deep at all free edges, doorways, wall perimeters, expansion joints, columns, drains, equipment pads, and terminations to other flooring systems. Keyways are recommended to control shrinkage and transitions to other floor systems.

#### Slope and Pitch:

KOSTER UC 100 may be installed on sloped floors pitched up to 0.5 in/ft. KOSTER UC 200 may be used on smaller areas to complete pitching and finishing in one install by adding KOSTER Quartz Q25 or 1/4 in or 3/8 in pea gravel to prevent slumping. Such aggregate may also be added in applications where KOSTER UC 200 needs to be installed thicker than 1/2 in. Larger areas that require pitching, sloping or repair may be completed by using KOSTER Repair Mortar mixed with 20% KOSTER SB Bonding Emulsion added to the mixing water.

#### Crack repair and patching:

Cracks or voids up to 1/2-in x 1/2-in can be pre-coated with KOSTER UC 100 prior to installation of the final coat. Larger cracks or deeper

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holes may be primed with KOSTER UC 300 and filled with KOSTER UC 200 with additional sand added to create a drier mix. Allow patched area to harden before applying KOSTER UC 100.

#### Application:

Pour the entire mixed batch on the floor in a ribbon and spread the materials using a 1/2-in notched squeegee. Trowel edges, drains, and around equipment supports with even pressure and a low angle in a sweeping motion. Ensure that new batches of mixed material are blended together with previously placed material with no transition lines for continuity of finish. Immediately after spreading KOSTER UC 100, roll the material with a loop roller to eliminate lines and help release air. Loop rolling must be completed immediately after leveling of the material to eliminate any residual roller marks in the finished surface (within 12 minutes of mixing at 70°F). Do not go back and loop roll again once you have left an area; too much loop rolling may leave the surface uneven. Too little loop rolling will leave the surface uneven. Ensure tools are dry before they come into contact with KOSTER UC 100. Check the layer thickness regularly during application to insure that tools and application process are delivering the desired layer thickness. Keep moisture from coming into contact with KOSTER UC 100 during installation and curing. Water may alter the surface appearance. A minimum of 8 hrs curing time at 75°F (24 hrs at 50°F) should be observed before exposing the surface to light foot traffic. 72 hour curing time is required before exposing the material to heavy loads.

#### **Coverage**

1 kit yields approx. 50 sq ft at 1/8-in thickness.

#### **Cleaning**

Clean tools immediately with xylene (or similar). Cured material can only be removed mechanically.

#### **Packaging**

CT 251 007 44 lb combipackage

#### **Storage**

Store all components dry between 50°F and 90°F. Protect the A and B components from freezing. Do not use open or partial bags of aggregate.

#### **Safety**

Consult Safety Data Sheet. Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Use only as directed.

#### **Limited Warranty**

KOSTER warrants that its product shall be in accordance with the specifications published in the current revision of the products data sheet. KOSTER covenants that in the event any of its products fail to meet their published specifications, KOSTER shall replace those products proved to be defective. KOSTER shall not be responsible for any incidental or consequential damages due to the breach of its warranties. Notwithstanding the foregoing, KOSTER's sole liability hereunder shall not exceed the cost of the defective product originally purchased. EXCEPT AS SET FORTH ABOVE, KOSTER MAKES NO

OTHER WARRANTIES EXPRESS OR IMPLIED AND MAKES NO WARRANTY AS TO THE MERCHANTABILITY OR FITNESS OF THE PRODUCT FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The user must determine if the product is suited for the intended use and the user must bear the risks and liabilities associated with it.

#### **Related products**

KOSTER UC 200	Art.-Nr. CT 252 055
KOSTER UC 300	Art.-Nr. CT 253 022
KOSTER MPE	Art.-Nr. CT 261
KOSTER MPE-F	Art.-Nr. CT 262
KOSTER MPE-F-Color	Art.-Nr. CT 264
KOSTER UTC	Art.-Nr. CT 321
KOSTER UTC-Color	Art.-Nr. CT 322

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