



KOSTER MRU

Technical Data Sheet SL 294 022

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Fast hardening, protective, moisture resistant self-leveling underlayment.

Features

KOSTER MRU is a high-strength, self-leveling underlayment with high resistance to chemical and mechanical stress. It is a highly moisture resistant product and is an applicable leveling underlayment for use over uneven or coarse concrete and cementitious materials. Due to its high chemical resistance, it can be used to protect against light and medium corrosion and serves as a slowly reacting sacrificial layer in areas of high chemical stress, such as agricultural, industrial, workshop, production facilities, commercial and private use buildings. The KOSTER MRU can be installed over slabs with an RH of 100%.

Technical Data

Application temperature	approx. 40-90°F
Working Time, 70°F	15-20 minutes (ASTM C1708)
Compressive strength, (28 days)	6000 psi at 28 days (ASTM C109)
Installation Thickness	3/8" to 1" (single lift)
Initial Set	approx. 35 min (ASTM C191)
Compressive Strength	6000 psi at 28 days (ASTM C109)
Walkable	2-3 hr
Install Flooring	approx. 12 hr (for moisture resistant coverings)
	approx. 24 hr (for moisture sensitive coverings)

Fields of Application

KOSTER MRU is intended for use on interior floor leveling applications, especially in industrial and agricultural areas where high chemical and mechanical resistance is required. KOSTER MRU is intended to be used under KOSTER VAP I® 2000 systems or flooring systems using moisture tolerant adhesives. This product does not function as a vapor barrier and permits flow of moisture.

Substrate

Substrates to receive KOSTER MRU must be sound, clean, and free of curing compounds, oil, grease, paint, loose particles, or any contaminant that may weaken the bond. The tensile pull off strength of the substrate must be at least 200 psi (ASTM C1583). Concrete must be at least 28 days old. Do not acid etch substrates. Do not clean concrete substrate with chemicals. Do not install over substrates containing asbestos, adhesive residue or other flooring products. Do not bridge movement joints with KOSTER MRU. Do not install over standing water. Environmental temperature must be 50 - 90°F. The product may be installed over concrete substrates with RH readings to 100%.

For use directly on concrete: For direct application to concrete, the concrete surface must be absorptive. Dense, hard-troweled concrete, or concrete with residual curing compounds must be mechanically

abraded to minimum ICRI CSP3 until water is easily absorbed. Clean the surface thoroughly by sweeping and vacuuming to remove dust. Prime the cleaned concrete substrate using a thin, even coat of KOSTER SL Primer at 400-800 ft²/gal. Do not allow the product to puddle. Thick applications may cause bonding problems. Allow the KOSTER SL Primer to dry to a translucent green film, usually 30 min to 1 hr at 70°F and 50% RH. High humidity will extend drying time. Keep the primed surface clean until the underlayment is installed. Install the KOSTER MRU within 48 hours after primer application.

For use under KOSTER VAP I® 2000 systems: KOSTER MRU must be installed at minimum 3/8". KOSTER MRU should be prepared to a Concrete Surface Profile (CSP) 2/3 by mechanical means and subsequently cleaned and vacuumed prior to installing KOSTER VAP I® 2000 systems. See KOSTER VAP I® 2000 systems technical data sheets for installation instructions.

Application

Mixing

Mix TWO bags of KOSTER MRU at a time. Pour 7.5-8 quarts (7.1-7.57L) of clean potable water into a clean mixing vessel (3.75-4qts (3.55-3.79L) for each 50-lb bag). Do not over-water! Add two 50-lb. bags of KOSTER MRU in increments while mixing with an electrical mixer equipped with a suitable helical or egg-beater style mixing paddle at 600 - 700 rpm. After all material has been added into the mixing water, continue mixing for 2 to 3 minutes. The resulting consistency must be smooth, flowable, and lump free.

Installation

Pour mixed KOSTER MRU onto the primed substrate and spread using a gauge rake. A smoothing tool may be used to blend freshly poured material into adjacent pours. KOSTER MRU will level itself over 15-20 minutes at 70°F with no troweling. Spike Rolling may or may not be required. Protect poured underlayment from excessive heat, cold, premature drying, freezing and direct sunlight during installation and for 3 days after. Setting and drying times will be shortened in hot temperatures and extended in cold temperatures. If installing subsequent coatings, the KOSTER MRU must be mechanically abraded to minimum ICRI CSP 2/3 profile to prevent out-gassing and bond failures. Protect installed material from excessive heat or ventilation. Turn off ventilation while curing. Protect from foot traffic for at least 2-3 hours after installation. Do not allow traffic from motorized vehicles such as fork or scissor lifts for at least 3 days.

Coverage

Approximately 16 square feet per 50 lb bag at 3/8 inch layer thickness.

3/8"	16 ft²/bag
1/2"	12 ft²/bag
3/4"	9 ft²/bag
1"	6 ft²/bag

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The installer is responsible for the correct application taking into consideration the specific conditions of the construction site and the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which deviate from the specifications contained in any Company literature may not be relied upon in the absence of written confirmation from the Company. The installer must comply with all testing, technical requirement, guidelines, and industry customs at all times. The terms, conditions, and limitations contained in the written warranty for the product controls over the specifications contained herein. This guideline has been technically revised; all previous versions are invalid.

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Waterproofing Systems

Cleaning

Clean mixing equipment thoroughly with water and stiff scrub brush to avoid getting hardened product into subsequent batches. Keep mixing bucket clean.

Packaging

SL 294 022 50 lb bag

Storage

Store the material in a cool, dry place. When stored in originally sealed packages, KOSTER MRU can be stored for 6 months.

Safety

Consult Safety Data Sheet. Contains portland cement and silica sand; avoid contact with eyes or prolonged contact with skin. Wear personal protective equipment including gloves and safety eyewear. Do not take internally. Eliminate exposure and avoid breathing dust; contains free silica. In case of eye contact, flush immediately with clean water and consult a physician. In case of skin contact, wash immediately with soap and water.

Related products

KOSTER VAP I 2000 Zero VOC	Art.-Nr. CT 230
KOSTER Spiked Roller	Art.-Nr. CT 914 001
KOSTER Gauge Rake	Art.-Nr. CT 915 001

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