BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET

SikaEmaco®-1061

(formerly MEmaco T 1061)

Rapid-setting, cement-based, concrete repair mortar with extended working time

PRODUCT DESCRIPTION

SikaEmaco®-1061 is a one-component, shrinkage-compensated, cement-based mortar with an extended working time. It is designed for repairing horizontal concrete surfaces.

WHERE TO USE

- Interior and exterior
- Horizontal surfaces
- Applications requiring high early-strength gain
- Structural concrete repairs
- Partial and full-depth repairs

Substrates
- Concrete

CHARACTERISTICS / ADVANTAGES

- Extended working time
- Extra low permeability helps minimize chloride intrusion
- Rapid-setting for quick turn-around repairs
- Low residual moisture, can be coated in as little as 6 hours
- Excellent resistance to freeze/thaw cycling
- Shrinkage compensated, minimizing cracking from drying shrinkage, reducing stress at the bond line
- Can be placed full depth thicknesses without having to add additional aggregate.
- Can be extended up to 100 % by weight, providing higher yields
- Proprietary cement blend bonds to carbonated and noncarbonated concrete substrates

TECHNICAL INFORMATION

Compressive Strength	**51 mm (2 in) cubes**	
	3 hours: 21 MPa (3000 psi)	(ASTM C109)
	1 day: 28 MPa (4000 psi)	
	28 days: 55 MPa (8000 psi)	
	75 mm x 150 mm (3 in x 6 in) cylinders	
	28 days: 51 MPa (7400 psi)	(ASTM C39)
Modulus of Elasticity in Compression	32.0 GPa (4.6 x 10^6 psi)	(ASTM C469)
Tensile Strength in Flexure	1 day: 5 MPa (700 psi)	(ASTM C348)
	28 days: 6 MPa (850 psi)	

Shear Strength	**Slant shear bond strength** 1 day: 16 MPa (2300 psi) 28 days: 18 MPa (2600 psi)	(ASTM C882, modified) No bonding agent was used; mortar was scrubbed into the substrate.
Shrinkage	Dry shrinkage: -0.05 % (−500 µstrain)	(ASTM C928)
Expansion	Wet expansion: +0.03 % (+300 µstrain)	(ASTM C928)
Coefficient of Thermal Expansion	12.6 x 10^{-6} cm/cm/°C (6.8 x 10^{-6} in/in/°F)	(CRD C 39)
Freeze Thaw De-Icing Salt Resistance	**Scaling resistance** 0 rating (no scaling) at 25 cycles	(ASTM C672)
Design Considerations	**Dust reduction** SikaEmaco®-1061 vs. Control: 75 %	(DIN 55992-2)
Freeze thaw resistance	100 % RDM at 300 cycles	(ASTM C666, [Procedure A])
Splitting Tensile Strength	1 day: 3 MPa (400 psi) 28 days: 3.1 MPa (450 psi)	(ASTM C496)
Chloride Ion Diffusion Resistance	< 300 coulombs	(ASTM C1202)

PRODUCT INFORMATION

Composition / Manufacturing	Proprietary blend of cement, graded aggregate, shrinkage-compensating agents, and set-control additives
Packaging	22.6 kg (50 lb) polyethylene-lined bags 1134 kg (2500 lb) FIBC* ** Flexible Intermediate Bulk Container*
Shelf Life	22.6 kg (50 lb) bag: 1 year when properly stored 1134 kg (2500 lb) FIBC: 6 months when properly stored
Storage Conditions	Store in unopened containers in cool, clean, dry conditions

APPLICATION INFORMATION

Fresh Mortar Density	2082 kg/m³ (130 lb/ft³)	(ASTM C138)
Yield	Approx. 0.012 m³ (0.43 ft³) per 22.6 kg (50 lb) bag ▪ When extended 50 %: 0.016 m³ (0.57 ft³) ▪ When extended 100 %: 0.022 m³ (0.77 ft³)	
Pot Life	**Working time:** 25 minutes	
Initial Set Time	50 minutes at 22 °C (72 °F)	(ASTM C191)
Final Set Time	80 minutes at 22 °C (72 °F)	(ASTM C191)

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

LIMITATIONS

SikaEmaco®-1061 is designed for professional use only; not for sale to or use by the general public. Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

- Minimum ambient, surface, and material temperature is 10 °C (50 °F) and rising.
- Do not mix for longer than five (5) minutes.
- Minimum application thickness is 13 mm (½ in).
- Neat SikaEmaco®-1061 can be applied to a minimum of 6 mm (¼ in) if intended for use under deck membranes on balconies subject to pedestrian traffic.
- Consult coating supplier for overcoating requirements.
- Do not mix partial bags.
- Do not add plasticizers, accelerators, retarders, or other additives.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Concrete
The substrate must be structurally sound and fully cured (28 days). Saw cut the perimeter of the area being repaired into a square with a minimum depth of 13 mm (½ in). Refer to current ICRI Guideline no. 310.2R for surface preparation requirements to permit proper bond.

Reinforcing steel
Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 310.1R. For additional protection from future corrosion, coat the prepared reinforcing steel with SikaTop® Armatec®-110 EpoCem® or Sikagard® P 8100 AP.

MIXING

Precondition material to 21 °C ±3 °C (70 °F ± 5 °F) before mixing.

Add 2.6 L (0.68 US gal) of potable water to the mixing container for each bag of SikaEmaco®-1061. If required, add the correct amount of aggregate to the mixer. Add the powder to the water while continuously mixing with a slow-speed drill and paddle, mortar mixer, or other forced-action mixer. Mix for a minimum of three (3) minutes until fully homogeneous.

Aggregate extension
If desired for economical considerations, up to 22.6 kg (50 lb) of 10 mm (⅜ in) washed, graded, rounded, SSD, low-absorption, high-density aggregate can be added per 22.6 kg (50 lb) bag.
Note that aggregate must comply with the requirements of ASTM C33.

APPLICATION

After removing all standing water, thoroughly scrub a thin layer of bond coat into the saturated surface with a stiff-bristled broom or brush. Do not dilute the bond coat with water. Do not apply more of this bond coat than can be covered with mortar before the bond coat dries. Do not retemper the bond coat. Immediately place the repair mortar from one side of the prepared area to the other. Work the material firmly into the bottom and sides of the patch to ensure a good bond. Level the SikaEmaco®-1061 and screed it to the elevation of the existing concrete. Apply the appropriate finish. Finish the completed repair, as required, taking care not to overwork the surface.The recommended application range of SikaEmaco®-1061 is from 10 °C to 29 °C (50 °F to 85 °F). Follow ACI 305 and 306 for hot or cold weather applications. A maximum of 25 minutes should be allowed to mix, place, and finish SikaEmaco®-1061 at 21 °C (70 °F) .

CURING TREATMENT

Cure with an approved curing compound compliant with ASTM C309 or preferably ASTM C1315. Alternative curing options include the application of a fine mist of water, wet burlap, or polyethylene sheeting for a minimum of two (2) days.

CLEAN UP

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

Sika Canada Inc.
Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations
Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)