



PRODUCT DATA SHEET

SikaEmaco[®]-1060

(formerly MEmaco T 1060)

Very rapid-setting, cement-based concrete repair mortar

PRODUCT DESCRIPTION

SikaEmaco[®]-1060 is a one-component, shrinkage-compensated, very rapid-setting, cement-based mortar. It is designed for repairing horizontal concrete surfaces where high early strength gain is required.

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

- Extra low permeability helps minimize chloride intrusion
- Very rapid setting allowing structures to be opened to vehicular traffic in 1 hour
- Low residual moisture, can be coated 4 hours after application
- 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 non-carbonated concrete substrates

APPROVALS / CERTIFICATES

- Meets ASTM C928 requirements

PRODUCT INFORMATION

CSC MasterFormat[®]

CSC Master Format[™] 03 01 00 - MAINTENANCE OF CONCRETE

Composition / Manufacturing

Blend of cement, graded aggregate, shrinkage-compensating agent, and set-control additives

Packaging

22.6 kg (50 lb) polyethylene-lined bag
1360 kg (3000 lb) FIBC

Shelf Life

22.6 kg (50 lb) bag: 1 year when properly stored
1360 kg (3000 lb) FIBC: 6 months when properly stored

Storage Conditions

Store in unopened containers in cool, clean, dry conditions

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September 2024, Version 02.01

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TECHNICAL INFORMATION

Compressive Strength	1 hour	14 MPa (2,000 psi)	(ASTM C109)
	24 hours	34 MPa (5,000 psi)	
	28 days	55 MPa (8,000 psi)	
Modulus of Elasticity in Compression	19.5GPa (4.4x 10 ⁶ psi)		(ASTM C469)
Tensile Strength in Flexure	1 day	5 MPa (700 psi)	(ASTM C348)
	28 days	6 MPa (850 psi)	
Splitting Tensile Strength	1 day	3 MPa (400 psi)	(ASTM C496)
	28 days	4.5 MPa (820 psi)	
Shear Strength	Slant Shear Bond Strength		(ASTM C 882, modified*)
	1 day	16 MPa (2,300 psi)	
	28 days	18 MPa (2,600 psi)	
<i>*No bonding agent was used; mortar was scrubbed into the substrate.</i>			
Shrinkage	Dry	-0.05 % (-500 µstrain)	(ASTM C928)
	Wet	+0.03 % (+300µstrain)	
Coefficient of Thermal Expansion	12.6 cm/cm/°C x 10 ⁻⁶ (7.0 in/in/°F x 10 ⁻⁶)		(CRD C39)
Chloride Ion Diffusion Resistance	< 300 coulombs		(ASTM C1202)
Freeze thaw resistance	At 300 cycles	100 % RDM	(ASTM C666 - Procedure A)
Freeze Thaw De-icing Salt Resistance	At 25 cycles	0 rating (no scaling)	(ASTM C672)

APPLICATION INFORMATION

Fresh Mortar Density	Fresh wet density:	2,082 kg/m ³ (130 lb/ft ³)	(ASTM C138)
Yield	0.012 m ³ (0.43 ft ³) per 22.6 kg (50 lb) <ul style="list-style-type: none"> ▪ When extended 50 %: 0.016 m³ (0.57 ft³) ▪ When extended 100 %: 0.022 m³ (0.77 ft³) 		
Setting Time	Working time: 8 minutes		
Initial Set Time	16 minutes at +22 °C (+72 °F)	(ASTM C191)	
Final Set Time	28 minutes at +22 °C (+72 °F)	(ASTM C 191)	

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.

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

NOTES ON INSTALLATION

SikaEmaco®-1060 is designed for professional use only; not for sale to or use by the general public.

- Minimum ambient, surface, and material temperature: 4 °C (40 °F) and rising
- Do not mix for longer than five (5) minutes
- Minimum application thickness: 13 mm (1/2 in)
- Neat SikaEmaco®-1060 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.
- 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.

SUBSTRATE PREPARATION

Concrete

1. Concrete must be structurally sound and fully cured (28 days).
2. Saw cut the perimeter of the area to be repaired into a square with a minimum depth of 13 mm (1/2 in).
3. Refer to current ICRI Guideline no. 310.2R for surface preparation requirements to permit proper bond.

Reinforcing Steel

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

MIXING

1. Precondition material to 21 °C (±3°) [70 °F (±5°)] before mixing.
2. Add 2.6 L (0.68 US gal.) of potable water to the mixing container for each bag of SikaEmaco®-1060. 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.
3. Mix for a minimum of three (3) minutes until the mix has reached an homogeneous consistency.

Aggregate Extension

Up to 22.6 kg (50 lb) of 10 mm (¾ in) washed, graded, rounded, SSD, low-absorption, high-density aggregate can be added per 22.6 kg (50 lb) bag.

Note: Aggregate must comply with ASTM C33 requirements.

APPLICATION

1. 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.
2. 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®-1060 and screed it to the elevation of the existing concrete. Apply the appropriate finish.
3. Finish the completed repair, as required, taking care not to overwork the surface.
4. The recommended application range of SikaEmaco®-1060 is from 4 °C to 29 °C (40 °F to 85 °F). Follow ACI 305 and 306 for hot or cold weather concreting.
5. A maximum of 15 minutes should be allowed to mix, place, and finish SikaEmaco®-1060 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. Once hardened, the material can only be removed mechanically.

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

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