

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. A reduced dust version is available separately.

USES

- 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 so that structures can be opened to vehicular traffic in 1 hour
- Low residual moisture, can be coated in as little as 4 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

APPROVALS / STANDARDS

(ASTM C 928)

PRODUCT INFORMATION

Chemical Base	SikaEmaco [®] -1060 is a blend of cement, graded aggregate, shrinkage-compensating agents, and set-control additives.
Packaging	SikaEmaco [®] -1060 50 lbs (22.6 kgs) polyethylene-lined bags 3,000 lbs (1,360 kgs) bulk bags
Shelf Life	50 LB BAGS: 1 year when properly stored 3,000 LB BULK BAGS: 6 months when properly stored
Storage Conditions	Store in unopened containers in cool, clean, dry conditions

TECHNICAL INFORMATION

Compressive Strength	2" cubes		
	1 hr: 2,000psi (14MPa)		(ASTM C 109)
	1 day: 5,000psi (34MPa)		
	28 days: 8,000psi (55MPa)		
	3 by 6" cubes		
	28 days: 7,400psi (51MPa)		(ASTM C 39)
Modulus of Elasticity in Compression	4.4psi x 10 ⁶ (19.5GPa)		(ASTM C 469)
Flexural Strength	1 day: 700psi (5MPa)		(ASTM C 348)
	28 days: 850psi (6MPa)		
Splitting tensile strength	1 day: 400psi (3MPa)		(ASTM C 496)
	28 days: 850psi (4.5MPa)		
Shear Strength	Slant Shear Bond Strength		
	1 day: 2,300psi (16MPa)		(ASTM C 882, modified*)
	28 days: 2,600psi (18MPa)		*No bonding agent was used; mortar was scrubbed into the substrate.
Shrinkage	-0.05% (-500μstrain)		(ASTM C 928)
Expansion	Wetting expansion: +0.03% (+300μ strain)		(ASTM C 928)
Coefficient of Thermal Expansion	7.0in/in/°F x 10 ⁻⁶ (12.6cm/cm/°C x 10 ⁻⁶)		(CRD C 39)
Rapid Chloride Permeability	Rapid chloride permeability	< 300coulombs	(ASTM C 1202)
Freeze-Thaw Stability	At 300 cycles	100% RDM	(ASTM C 666, (Procedure A))
Freeze Thaw De-Icing Salt Resistance	0 rating(No scaling) at 25 cycles		(ASTM C 672)

APPLICATION INFORMATION

Fresh mortar density	Fresh wet density: 130lb/ft ³ (2,082kg/m ³)		(ASTM C 138)
Coverage	0.43 ft ³ (0.012 m ³) per 50 lbs (22.6 kgs)		
	▪ WHEN EXTENDED 50%: 0.57 ft ³ (0.016 m ³)		
	▪ WHEN EXTENDED 100%: 0.77 ft ³ (0.022 m ³)		
Thinner	Working time: 8 min		
Set Time	16 min at 72°F (22°C)		(ASTM C 191)
Final set time	28 min at 72°F (22°C)		(ASTM C 191)

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations

depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

NOTES ON INSTALLATION

- The minimum ambient, surface, and material temperature is 40 °F (4 °C) and rising.
- Do not mix for longer than 5 minutes.
- Minimum application thickness is 1/2" (13 mm).
- Neat SikaEmaco®-1060 can be applied to a minimum of ¼" (6 mm) 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.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of the product data sheet and SDS are being used.
- 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 being repaired into a square with a minimum depth of 1/2" (13 mm).
3. Refer to current ICRI Guideline no. 310.2R for surface prep 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 70 °F ±5° (21 °C ±3°) before mixing.
2. Add 5 1/2 pints (2.6 L) 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 3 minutes until fully homogeneous.

Aggregate Extension

1. If desired for economical considerations up to 50 lbs (22.6 kgs) of ¾" (10 mm) washed, graded, rounded, SSD, low-absorption, high-density aggregate can be added per 50 lbs (22.6 kgs) bag.
2. Aggregate must comply with the requirements of ASTM C 33.

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 40 to 85 °F (4 to 29 °C). Follow ACI 305 and 306 for hot or cold weather.
5. A maximum of 15 minutes should be allowed to mix, place, and finish SikaEmaco®-1060 at 70 °F (21 °C).

CURING TREATMENT

Cure with an approved curing compound compliant with ASTM C 309 or preferably ASTM C 1315. Alternative curing options include the application of a fine mist of water, wet burlap, or polyethylene sheeting for a minimum of 2 days.

CLEANING OF TOOLS

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

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY

• **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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Product Data Sheet

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