

# MasterEmaco<sup>®</sup> T 1061EX

Low-dust\*, rapid-setting cement-based pre-extended concrete repair mortar with extended working time

## PACKAGING

50 lb (22.6 kg) polyethylene-lined bags

## YIELD

0.38 ft<sup>3</sup> (0.010 m<sup>3</sup>) per 50 lb (22.6 kg)

## SHELF LIFE

1 year when properly stored

## STORAGE

Store in unopened containers in cool, clean, dry conditions.

## VOC CONTENT

0 g/L less water and exempt solvents

\*Only material manufactured April 2020 or later is low dust. Please contact sales representative with any questions.

## DESCRIPTION

MasterEmaco T 1061EX is a one-component, shrinkage-compensated, very rapid-setting, cement-based pre-extended mortar with an extended working time. It is designed for repairing horizontal concrete surfaces in applications from 1.5" (38 mm) to full depth.

## PRODUCT HIGHLIGHTS

- Pre-extension with coarse aggregate at the factory ensures quality and saves contractor labor
- Low-dusting for added worker comfort and safety
- 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 freeze/thaw cycling
- Shrinkage-compensated, to minimize cracking from drying shrinkage, which reduces stress at the bond line
- Proprietary cement blend bonds to carbonated and noncarbonated concrete substrates

## APPLICATIONS

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

## SUBSTRATES

- Concrete

## HOW TO APPLY

### SURFACE 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" (25 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 MasterProtect 8100 AP.

**Technical Data**

**Composition**

MasterEmaco T 1061EX is a blend of cement, graded aggregate, shrinkage compensating agents, and set-control additives.

**Typical Properties**

PROPERTY	VALUE
<b>Working time, min, at 70 °F (21 °C)</b>	25
<b>Application temperature range, °F (°C)</b>	50-85 (10-29)
<b>Slump, in (Cm)</b>	3-5 (8-13)

**Test Data**

PROPERTY	RESULTS	TEST METHOD
<b>Fresh wet density, lb/ft<sup>3</sup> (kg/m<sup>3</sup>)</b>	148 (2,370)	ASTM C 138
<b>Set time, min, at 72 °F (22 °C)</b>		ASTM C 191
Initial	50	
Final	80	
<b>Working time, min</b>	25	
<b>Length change, % (µstrain)</b>		ASTM C 928
Drying shrinkage	-0.03 (-300)	
Wetting expansion	+0.01 (+100)	
<b>Coefficient of thermal expansion, in/in/°F (cm/cm/°C)</b>	7.2 x 10 <sup>-6</sup> (13 x 10 <sup>-6</sup> )	CRD C 39
<b>Modulus of Elasticity, psi</b>	6.07 x 10 <sup>6</sup>	ASTM C 469
<b>Rapid chloride permeability, Coulombs</b>	565	ASTM C 1202
<b>Freeze/thaw resistance, % RDM, at 300 cycles</b>	95.6	ASTM A 666, (Procedure A)
<b>Scaling resistance, at 25 cycles</b>	No scaling	ASTM C 672
<b>Slant shear bond strength, psi (MPa)</b>		ASTM C 882, modified <sup>1</sup>
1 day	2,300 (16)	
28 days	2,600 (20)	
<b>Splitting tensile strength, psi (MPa)</b>		ASTM C 496
1 day	425 (3)	
28 days	525 (4)	
<b>Flexural strength, psi (MPa)</b>		ASTM C 348
1 day	755 (5)	
28 days	1,070 (7)	
<b>Compressive strength, psi (MPa), 2" cubes</b>		ASTM C 109
3 hr	3,000 (21)	
1 day	4,000 (28)	
28 days	8,000 (55)	
<b>Compressive strength, psi (MPa), 3 x 6" cylinders, at 28 days</b>	7,400 (51)	ASTM C 39
<b>Dust Reduction, %</b>		
MasterEmaco T 1061EX vs. Control	70%	DIN55992-2
<b>Potential Alkali-Silica Reactivity, Aggregate</b>	<0.10% (Innocuous expansion)	ASTM C 1260

<sup>1</sup>No bonding agent used; mortar scrubbed into substrate.

All application and performance values are typical for the material, but may vary with test methods, conditions, and configurations.

#### MIXING

1. Precondition to 70 °F ± 5° (21° ± 3°) before mixing
2. Add 3.25 pints (1.5 L) of potable water to the mixing container for each bag of MasterEmaco T 1061 EX. 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.

#### 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 good bond. Level the MasterEmaco T 1061 EX 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 MasterEmaco T 1061 EX is from 50 to 85 °F (10 to 29 °C). Delayed set and strength gain will be experienced if used below 50 °F (10 °C). Follow ACI 305 and 306 for hot or cold weather.

#### CURING

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

#### CLEAN UP

- Clean tools and equipment with clean water immediately after use. Cured material can be removed by mechanical means only.

#### FOR BEST PERFORMANCE

- Minimum ambient, surface, and material temperature is 50 °F (10 °C) and rising.
- Do not mix longer than 5 minutes.
- Minimum application thickness is 1.5" (38 mm).
- 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 product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite

#### HEALTH, SAFETY AND ENVIRONMENTAL

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**CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.**

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