

**3** | 03 01 00  
Maintenance of  
Concrete

# MasterEmaco® N 426

Fast-setting polymer-modified vertical patching mortar

FORMERLY THORITE® RAPID VERTICAL

## PACKAGING

60 lb (27 kg) pails

## YIELD

0.6 ft<sup>3</sup> (0.014 m<sup>3</sup>) per  
60 lb (27.2 kg) pail

## STORAGE

Store in unopened containers in a  
cool, clean, dry area

## SHELF LIFE

12 months when properly stored

## VOC CONTENT

0 g/L less water and exempt solvents

## DESCRIPTION

MasterEmaco N 426 is a one component fast-setting polymer modified Portland-cement-based repair mortar for vertical and overhead concrete and masonry surfaces.

## PRODUCT HIGHLIGHTS

- Polymer modification improves adhesion and provides increased freeze/thaw stability
- Only requires the addition of potable water
- Non-sag consistency able to be placed in 1" (25 mm) thick lifts

## APPLICATIONS

- Interior and exterior
- Vertical and overhead
- Above grade
- Spalls or holes in concrete
- Deteriorated edges

## SUBSTRATES

- Concrete
- Masonry

## Technical Data

### Composition

MasterEmaco N 426 is a proprietary mix composed of cement, graded silica, fillers, dry polymer, and additives.

## Test Data

PROPERTY	RESULTS	TEST METHOD
<b>Compressive strength, psi (MPa)</b>		ASTM C 109
1 day	3,000 (20.6)	
7 days	5,000 (34.5)	
28 days	6,500 (44.8)	
<b>Flexural strength, psi (MPa)</b>		ASTM C 348
7 days	980 (6.8)	
28 days	1,230 (8.5)	
<b>Tensile strength, psi (MPa)</b>		ASTM C 190
7 days	600 (4.1)	
28 days	810 (5.5)	
<b>Modulus of elasticity, psi (MPa)</b>		ASTM C 469
28 days	2.18 × 10 <sup>6</sup> (1.5 × 10 <sup>4</sup> )	
<b>Initial set, min</b>	10–15	ASTM C 807
<b>Final set, min</b>	15–20	ASTM C 807

Test results are averages obtained under laboratory conditions at 70° F (21° C) and 50% rh. Reasonable variations can be expected.

## HOW TO APPLY

### SURFACE PREPARATION

1. Substrate 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 1/4" (6 mm).
3. The surface to be repaired must be clean, free of laitance and saturated surface-dry (SSD) following ICRI Guideline no. 310.2 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 P 8100 AP.

### MIXING

1. Precondition material to 70° F ±5° (21° C ±3°) before mixing.
2. Mechanically mix at slow speed with a 3/4" drill and mixing paddle.

3. Add 3 quarts (2.8 L) of potable water to a clean container. Gradually add powder while mixing at low speed to obtain a uniform, lump-free consistency. Mechanically mix with slow-speed drill and mixing paddle at 400–600 rpm or use an appropriate size mortar mixer.
4. Mix for 2–3 minutes. Do not overmix. Add up to 1/2 pint (0.24 L) of potable water only if needed for workability. Do not exceed 3.9 quarts (3.7 L) per 60 lb (27 kg) pail.
5. For applications exceeding the above recommendations, extend MasterEmaco N 426 with up to 15 lbs (6.8 kg) of washed, graded, saturated surface-dry (SSD) aggregate per 60 lb (27.2 kg) pail. When extended, up to 5 60 lb (27.2 kg) pails of MasterEmaco N 426 can be used at once.

### APPLICATION

1. Dampen the surface with potable water; it must be saturated surface-dry (SSD) with no standing water.
2. With a gloved hand, scrub a small quantity of mixed material into the SSD substrate.

Thoroughly key in and work the material throughout the cavity to promote bond. Do not apply more of the bond coat than can be covered with mortar before the bond coat dries.

3. Apply material in lifts of 1/8 – 1" (3–25 mm). Avoid featheredging. For optimum mechanical bond on successive lifts, thoroughly score each lift and allow to reach initial set before the next layer is applied. Placement time is 10–15 minutes at 70° F (21° C) and 50% relative humidity.
5. Trowel, shave or shape material to the desired finish after initial set.
6. The recommended application range of MasterEmaco N 426 is from 40 to 90° F (4 to 32° C). Follow ACI 305 and 306 for hot or cold weather guidelines.

### CURING

Cure with an approved water based curing compound compliant with ASTM C 309 or preferably ASTM C 1315. If the repair area will receive a coating, wet curing is recommended.

#### CLEAN UP

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

#### FOR BEST PERFORMANCE

- Do not bridge moving cracks or joints.
- Do not overwork material
- Do not add plasticizers, accelerators, retarders, or other additives.
- Bonding agents are recommended for large areas as well as permanently damp areas.
- Protect from freezing for 24 hours after application.
- 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 SDS are being used; visit [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us) to verify the most current versions.
- 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 not for supervising or providing quality control on the jobsite.

#### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us), e-mailing your request to [mbsbscst@mbcc-group.com](mailto:mbsbscst@mbcc-group.com) or calling 1(800)433-9517. Use only as directed.

**IN CASE OF EMERGENCY: Call CHEMTEL  
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