

MasterEmaco[®] S 467RS

Flowable, high early strength, structural repair mortar with extended working time

PACKAGING

50 lb (22.6 kg) multi wall paper bags
600 lb (272 kg) bulk bag

YIELD

0.43 ft³ (0.012 m³) per 50 lb. bag neat
0.56 ft³ (0.016 m³) per 50 lb. bag when
extended 50%
0.76 ft³ (0.022 m³) per 50 lb. bag when
extended 100%

COLOR

Concrete gray when cured

STORAGE

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

SHELF LIFE

50 LB BAG: 12 months when properly
stored
600 LB BULK BAG: 3 months when
properly stored.

VOC CONTENT

0 g/L less water and exempt solvents

DESCRIPTION

MasterEmaco S 467RS is a flowable, high early strength, cementitious repair mortar with extended working time designed for large volume repairs in applications from ½" (13 mm) to full depth.

PRODUCT HIGHLIGHTS

- Very high initial strengths
- Extended working time
- Very low permeability
- Low residual moisture, can be coated in as little as 6 hours
- Very high bond strengths
- Can be placed neat or extended with clean, well-graded coarse aggregate to fill large voids
- High freeze/thaw resistance

APPLICATIONS

- Interior and exterior
- Partial and full depth structural repairs
- Repair or replacement of concrete elements
- Horizontal surfaces

SUBSTRATES

- Concrete

HOW TO APPLY SURFACE PREPARATION CONCRETE

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 minimum depths of ½" (13 mm).
3. Refer to current ICRI Guideline No. 310.2R for surface prep requirements to permit proper bond. Rougher profiles should be used in areas where harsh or dynamic loading is expected.

REINFORCING STEEL

1. Remove all oxidation and scale 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.

Technical Data

Composition

MasterEmaco S 467RS is a blend of cement, graded aggregate, shrinkage-compensating agents and set-control additives.

PHYSICAL PROPERTIES

PROPERTY	RESULTS	TEST METHOD
Set time, min @ 70 °F (22 °C)		ASTM C 191
Initial	50	
Final	80	
Working time, min	25	
Compressive Strength, psi (MPa)		ASTM C 109
3 hour	3,000 (20)	
1 day	5,500 (40)	
7 days	7,500 (52)	
28 days	8,500 (58)	
Bond Strength, psi (MPa)		ASTM C 882 ¹
1 day	2,200 (15)	
7 days	2,600 (18)	
Length Change, %		ASTM C 157
28 days Wet	+ 0.057%	
28 days Dry	- 0.023%	
Freeze/thaw resistance, % RDM		ASTM C 666 (Procedure A)
300 Cycles	96%	
Rapid Chloride Permeability, Coulombs		ASTM C 1202
28 Days	<1,000 (Very Low)	

These results were obtained with a water / powder ratio of 5.5 pints (2.6 L) of water to 50 lbs (22.7 kg) of MasterEmaco S 467RS at 70 °F (23 °C)

¹No bonding agent used; mortar scrubbed into substrate

Expect reasonable variations depending on application methods, test methods and curing conditions

MIXING

1. Precondition material to 70 °F ±5° (21 °C ±3°) before mixing.
2. Add 5 ½ pints (2.6 L) of potable water to the mixing container for each bag of MasterEmaco S 467RS. If using extender aggregate, 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. For areas 2–4" (51–102 mm) in depth, applicator may add 15–25 lbs (6.8–11.4 kg) of ¾" (10 mm) washed, graded, rounded, SSD, low-absorption, high density aggregate per 50 lb (22.6 kg) bag.
2. For areas greater than 4" (102 mm) in depth, applicator may add 25–50 lbs (11.4–22.6 kg) of ¾" (10 mm) washed, graded, rounded, SSD, low-absorption, high density aggregate per 50 lb bag.
3. The maximum aggregate extension is 50 lbs (22.6 kg) of pea gravel per bag.
4. 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 good bond. Level the MasterEmaco S 467RS 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 S 467RS is from 50 to 85 °F (10 to 29 °C). Follow ACI 305 and 306 for hot or cold weather.
5. A maximum of 25 minutes should be allowed to mix, place, and finish MasterEmaco S 467RS at 70 °F (21 °C).

CURING

Cure with an approved curing compound compliant with ASTM C 309 or preferably ASTC C 1315.

CLEAN UP

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

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 1/2" (13 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.
- Contact your local representative for a pre-job conference to plan the installation.
- Make certain the most current versions of product data sheet and SDS are being used; visit 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 Material Safety Data Sheets and product label information for this product prior to use. The MSDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbcst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

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

LIMITED WARRANTY NOTICE

Master Builders Solutions Construction Systems US, LLC ("Master Builders") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders' present knowledge and experience. However, Master Builders assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

FOR PROFESSIONAL USE ONLY. NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC.