

HORIZONTAL REPAIR

Master Format #: 03 01 30.71

EUCO 456S MORTAR

IRON AGGREGATE EPOXY REPAIR MORTAR



EUCLID CHEMICAL

PACKAGING

0.35 ft³ (0.01 m³) kit
Code: 038 27

APPROXIMATE YIELD

0.35 ft³ (0.01 m³) kit: Contains premeasured components of 0.97 gal (3.7 L) Part A (Resin), 0.25 gal (0.95 L) Part B (Hardener), and 53 lb (24 kg) Part C (Aggregate) all contained in a 5 gal (18.7 L) bucket, yielding 0.35 ft³ (0.01 m³) when mixed.

MINIMUM/MAXIMUM APPLICATION THICKNESS

1/8 to 2 inches (3 mm to 51 mm)

CLEAN UP

Clean tools and equipment with solvent such as acetone, toluene or MEK. Do not allow the epoxy to harden on tools or equipment. Hardened EUCO 456S MORTAR will require mechanical removal.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- EUCO 456S MORTAR PART A & PART B: ASTM C881, Types II & IV, Grade 1, Classes B & C

DESCRIPTION

EUCO 456S MORTAR is an epoxy repair material for use where exceptional strength and durability are needed. It consists of a two-component epoxy resin system and a specially graded iron aggregate. EUCO 456S MORTAR has excellent adhesion and provides maximum abrasion and impact resistance on floors with extra heavy duty traffic.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- The most durable mortar available for high impact and abrasive conditions
- Fast and economical repair system
- Excellent bonding to concrete
- Extremely high early strength
- 100% solids epoxy mortar

APPEARANCE

EUCO 456S MORTAR consists of a light gray epoxy resin (when mixed), and a charcoal/dark brown iron aggregate (Part C). Once mixed and applied, the surface color of EUCO 456S MORTAR will be a blend of the light gray resin with spots of the charcoal/dark brown aggregate showing through.

PRIMARY APPLICATIONS

- Floor joint repairs and overlays
- New installations to armor floor surfaces and joints
- Floor areas subject to cutting from steel flanges
- High impact areas in steel mills and other plants
- Repairing metallic shake floors
- Areas needing superior abrasion resistance

The following coverage rates are approximations based on yield of a 0.35 ft³ (0.01 m³) unit mixed at standard consistency.

Application Thickness - inches (mm)	1/8 (3)	1/4 (6)	1/2 (13)	3/4 (19)	1 (25)	1 1/2 (38)	2 (51)
Coverage Area per Unit - ft ² (m ²)	33.6 (3.12)	16.8 (1.56)	8.4 (0.78)	5.6 (0.52)	4.2 (0.39)	2.8 (0.26)	2.1 (0.20)

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values									
	Working Time	90 °F (32 °C) 30 minutes 75 °F (24 °C) 75 minutes 60 °F (16 °C) 90 minutes									
	Maximum Continuous Service Temperature	170 °F (77 °C)									
ASTM C109 2" (50 mm) cubes	Compressive Strength	1 day 12,000 psi (83 MPa) 3 days 12,500 psi (86 MPa) 7 days 13,000 psi (90 MPa) 28 days 13,500 psi (93 MPa)									
ASTM C882	Bond Strength	2,200 psi (15 MPa)									
ASTM C779 Procedure A	Abrasion Resistance	<table border="0"> <thead> <tr> <th></th> <th>Euco 456S</th> <th>Plain Concrete</th> </tr> </thead> <tbody> <tr> <td>30 minutes . . .</td> <td>0.008" (0.20 mm)</td> <td>0.048" (1.22 mm)</td> </tr> <tr> <td>60 minutes . . .</td> <td>0.013" (0.33 mm)</td> <td>0.102" (2.59 mm)</td> </tr> </tbody> </table>		Euco 456S	Plain Concrete	30 minutes . . .	0.008" (0.20 mm)	0.048" (1.22 mm)	60 minutes . . .	0.013" (0.33 mm)	0.102" (2.59 mm)
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DIRECTIONS FOR USE

Surface Preparation: Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP 6 - 7 in accordance with ICRI Guideline 310.2. Properly clean profiled area. **Priming:** Concrete must be primed with a coat of EUCO 456 PRIMER/SEALER. See product data sheet for EUCO 456 PRIMER/SEALER for full instructions.

Joints and Edges: Edges should be sawcut to 1/4" (6 mm) more than the overlay thickness and notched at the edge of the overlay to provide a locked edge. Moving joints as in the case of expansion joints should be brought up through the overlay by sawcutting or with the use of a divider strip. All cracks over 1/16" (2 mm) wide should be routed out to a 1/4" (6 mm) width and 1/4" (6 mm) depth prior to application of the mortar.

Mixing: All materials should be in the proper temperature range of 60 to 90 °F (16 to 32 °C). Separately mix Part A and part B individually before mixing together. Mix parts A and B (resin & hardener) for 2 minutes using a drill and mixing prop. For ease of mixing, add the Part B to the Part A (not the reverse). Slowly add Part C (iron aggregate). Mix for an additional 2 minutes or until all aggregate pieces are completely covered by the epoxy. For large placements, mix the epoxy separately in a 5 gallon pail then mix the epoxy and aggregate together in a mortar mixer. Place immediately.

Placement: For large overlays, use of vibratory screed is strongly recommended to maximize product density and ultimate performance. Finish by machine trowel. For patching, spread with a trowel, come-a-long, or square-tipped shovel to a thickness of about 1/8" (3 mm) higher than the final desired height of the overlay. Compact and finish by hand or machine trowel. EUCO 456S MORTAR may be sealed with a coat of EUCO 456 PRIMER/SEALER. See product data sheet for EUCO 456 PRIMER/SEALER for full instructions.

PRECAUTIONS/LIMITATIONS

- Interior use only
- EUCO 456S MORTAR is not a decorative product and should not be used where aesthetics are an issue.
- Not recommended where floor temperature will exceed 170 °F (77 °C) on a continual basis.
- Keep at room temperature 60 to 70 °F (16 to 21 °C) 24 hours prior to use for ease of product placement.
- Not suitable for use where the topping will be exposed to acids.
- In all cases, consult the Safety Data Sheet before use.

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