

EUCO #456 MORTAR

WEAR RESISTANT EPOXY OVERLAY SYSTEM



DESCRIPTION

EUCO #456 MORTAR is a trowel applied epoxy mortar system designed to surface and resurface floor slabs of all types. Worn and damaged floors can be restored to a uniform, high strength, wear resistant surface with the use of EUCO #456 MORTAR. Because EUCO #456 MORTAR is resistant to many commonly found chemicals, it is an excellent choice for protection against splash and spill chemical attack in combination with tough floor wear.

PRIMARY APPLICATIONS

- Industrial floors
- Warehouses
- Machine shops
- Food processing & rendering plants
- Kitchens
- Secondary chemical containment areas
- Common chemical processors
- High traffic aiseways
- Docks
- Ramps

FEATURES/BENEFITS

- Easy to use 3 part system
- Suitable for 1/8" (3 mm) to 2" (50 mm) thicknesses
- Quick cure formula minimizes plant down time
- Resistant to wear and abrasion from vehicular traffic
- Good for both new and old concrete
- High bond and flexural strength for impact resistance
- Solvent free and V.O.C. compliant 100% solids
- Resistant to common chemicals for dependable protection of concrete
- Can be installed with a non-slip surface
- High aggregate loading for thermal stability
- Heat resistant up to 220°F (104°C)
- Acceptable for U.S.D.A. approval

TECHNICAL INFORMATION

Typical Engineering Data

The following results were developed under laboratory conditions:

Temperature	60°F (16°C)	75°F (24°C)	90°F (32°C)
Pot Life	40 min	20 min	15 min
Working Time	1.5 hr	1 hr	20 min *

*For colder temperatures, use **EUCOPOXY LT MORTAR**.

Compressive Strength ASTM C 579, 2" (50 mm) cubes

Age	Strength
1 day	10,000 psi (69 MPa)
3 days	12,500 psi (86 MPa)
7 days	14,000 psi (97 MPa)
28 days	15,000 psi (103 MPa)

Split Tensile Strength ASTM C 496
2,300 psi (16 MPa)

Flexural Strength ASTM C 580
4,300 psi (30 MPa)

Bond Strength ASTM C 882
3,100 psi (21 MPa)

Coefficient of thermal expansion ASTM C 531:
2.3 x 10⁻⁵ in/in/oF (4.1 x 10⁻⁵ mm/mm/OC)

Heat Deflection Temperature: 192°F (89°C)

Chemical Resistance - Splash and Spill

Acetic.....	Poor
Acetone.....	Good
Animal Fat.....	Excellent
Aromatic.....	Good
Battery.....	Excellent
Brake Fluid.....	Good
Caustic Soda 10%.....	Excellent
Citric.....	Good
Gasoline.....	Good
Hydrochloric 20%.....	Excellent
Fatty Acid.....	Excellent
Lactic.....	Excellent
MEK.....	Poor
Mineral Spirits.....	Excellent
Nitric 10%.....	Poor
Salts.....	Excellent
Sulfuric, 50%.....	Good
Toluene.....	Fair
Transmission Fluid.....	Good
Urine.....	Excellent
Xylene.....	Fair

Appearance: EUCO #456 MORTAR will appear as a beige/sand surface when applied over a concrete floor, but a topcoat of EUCO #456 PRIMER, SEALER can be applied.

EUCO #456 MORTAR
Wear Resistant Epoxy Overlay System

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An **RPM** Company



PACKAGING/YIELD

EUCO #456 MORTAR is available in 0.5 ft³ (0.014 m³) kit. Part A resin 0.47 gal (1.8 L), Part B hardener 0.12 gal (0.5 L), Part C aggregates* 55 lbs (25 kg) **Euco epoxy Trowel Grade Silica Aggregate.*

EUCO #456 PRIMER,SEALER is available in 1.125 gal (4.26 L) and 4.5 gal (17.0 L) units, and must be ordered separately.

SHELF LIFE

2 years in original, unopened package.

SPECIFICATIONS/COMPLIANCES

•ASTM C 881, Types II and IV, Grade 1, Class B and C

COVERAGE

Coverage	Kit Size	Primer/Sealer Application	
Thickness	0.5 ft ³ (0.014m ³)	<u>Rough surface</u>	<u>Smooth Surface</u>
1/4" (6 mm)	24 ft ² (2.2 m ²)	60 to 80 ft ² /gal	100 to 150 ft ² /gal
1/2" (13 mm)	12 ft ² (1.1 m ²)	(1.5 to 2.0 m ² L)	(2.5 to 3.7 m ² L)

DIRECTIONS FOR USE

Surface Preparation: New concrete must be a minimum of 28 days old and possess an open surface texture with all curing compounds and sealers removed. Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 1/8" (3 mm) and expose the large aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. Acid etching is acceptable only when mechanical preparation is impractical. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to completely dry. **NOTE:** Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures.

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. 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.

Priming: The surface must be primed with EUCO #456 PRIMER, SEALER after the concrete surface has been prepared as indicated above. Apply the primer at the recommended coverage rate. Rougher surfaces may require a stiff broom to apply the primer while a relatively smooth, shotblasted surface will allow use of roller application.

Mixing: All materials should be in the proper temperature range of 60°F (16°C) to 90°F (32°C). Mix parts A and B (resin & hardener) for 2 minutes using a drill and mixing prop. After mixing add Part C. 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 gal (18.9 L) pail then mix the epoxy and aggregate together in a mortar mixer. Place immediately.

Placement: Discharge material from mixer and place onto floor. 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.

Sealing: If desired, the surface may be sealed or top coated with EUCO #456 PRIMER, SEALER. Additional chemical resistance can be achieved by topcoating with EUCOTHANE. Consult individual technical data sheets for specific chemical resistance information.

CLEAN-UP

Clean tools and equipment with solvent such as EUCO SOLVENT , xylene, xylol, toluene or MEK. Do not allow the epoxy to harden on equipment.

PRECAUTIONS/LIMITATIONS

- Interior use only.
- Not recommended in areas where the floor temperature exceeds 220°F (104°C) on a continual basis.
- Keep at room temperature 60°F to 70°F (16°C to 21°C) 24 hours prior to use.
- In all cases, consult the Material Safety Data Sheet before use.

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