



EUCO PQ

RAPID HARDENING HORIZONTAL REPAIR MORTAR WITH EXTENDED WORKING TIME

EUCLID CHEMICAL

HORIZONTAL REPAIR

EUCO PQ

MASTER FORMAT #: 03 01 30.71

DESCRIPTION

EUCO PQ is a versatile, single-component, rapid strength gaining repair mortar for horizontal, and form and pour repair projects. Requiring only the addition of water, **EUCO PQ** is a low-shrinkage, high early strength material that is easy to use for fast turn-around projects. Repaired areas may be open to standard tire traffic after 5 hours following the final set. **EUCO PQ** is similar in appearance to concrete and is suitable for use in repairing concrete surfaces from approximately 12 mm – 150 mm in thickness. **EUCO PQ** is a slower setting version of our popular VERSASPEED 100 material.

PRIMARY APPLICATIONS

- Multi-unit residential
- Bridges
- Loading docks
- Highways
- Warehouses
- Pavements
- Roads
- Parking decks and ramps
- Industrial / commercial / institutional floors
- Vertical/Overhead form and pour applications

FEATURES / BENEFITS

- Rapid strength gain with extended working time
- Suitable for interior or exterior applications
- Open to light duty traffic as soon as 4 hours
- Coat with epoxy after 5 hours at 21° C
- Micro-fiber reinforced
- Shrinkage compensated and reduced
- Can be placed 12 mm - 150 mm

TECHNICAL INFORMATION

The following results were developed under laboratory conditions @ 23°C:

PROPERTY	VALUES
Compressive Strength ASTM C109	3 hours 8.3 MPa 5 hour 19.3 MPa 1 day 27.6 MPa 7 days 34.5 MPa 28 days 55.2 MPa
Flexural Strength ASTM C348	1 day 3.7 MPa 7 days 6.9 MPa 28 days 7.6 MPa
Splitting Tensile Strength ASTM C496	7 days 2.1 MPa 28 days 3.3 MPa
Slant Shear Bond Strength ASTM C882 (modified per TXDOT DMS-4566)	1 day 10.3 MPa 7 days 14.5 MPa 28 days 19.3 MPa
Crack Resistance ASTM C1581	Net Time Until Cracking >90 days Stress Rate 7.1 psi/day
Length Change (28 days) ASTM C157*	Air cure - 0.030% Water cure +0.013%
Set Time ASTM C266	Initial set 30 - 60 mins Final set 60 - 100 mins
Freeze Thaw Resistance	300 cycles >95%
Modulus of Elasticity ASTM C469	28 days 5.28 x 106 psi
Resistivity (FM 5-578)	28 days 31,300 ohm/cm
Abrasion Resistance ASTM C779	28 days 0.019 inches of wear at 1 hr

*Based on initial length @ 24 hours; 7.6cm x 7.6cm x 27.9 cm beams

PACKAGING

EUCO PQ is packaged in 25 kg bags. Yield: 0.011 m³ per bag when mixed with 2.5 L of water.

SPECIFICATIONS/COMPLIANCES

ASTM C928 Standard Specification for Rapid-Hardening Cementitious Materials for Concrete Repairs

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 (Concrete Surface Profile) 5 - 7 in accordance with ICRI Guideline 310.2. Properly clean profiled area. Priming: Soak the repair area with potable water to achieve a saturated-surface dry (SSD) condition. The SSD concrete must be primed with a scrub coat of **EUCO PQ**. The repair must be made before the **EUCO PQ** scrub coat dries out.

Mixing: Single bags may be mixed with a drill and mixing paddle. Use a horizontal shaft mortar mixer for larger jobs. Add the appropriate amount of water for the batch size and then add the **EUCO PQ**. The amount of water to be mixed with the **EUCO PQ** is critical. Initially add 2.5 l of water per 25 kg bag and mix for 3 minutes. If after the initial 2 minutes of mixing the desired flow is not obtained, no more than 118 ml of additional water should be added to the mix in order to achieve more flow. Mix an additional 2 minutes after adding extra water.

Placement: Important-The application temperature range of **EUCO PQ** is from 5° to 35° C. Allow approximately 30 minutes to mix, place, and finish **EUCO PQ** repair mortar at 20°C. To make repairs, spread with a float, come-a-long, or square tipped shovel to a thickness that is level with the surrounding concrete. Do not use **EUCO PQ** for repairs less than 12 mm deep. For repairs less than 12 mm deep contact the Flowcrete technical department

Finishing: Finish the repair material to the desired texture. Do not add water to the surface during the finishing operation.

Curing & Sealing: Wet cure the surface with water and polyethylene sheets for at least one day, or use a curing compound (Kureseal). If applying an epoxy coating, **EUCO PQ** can be coated after 5 hours at 21° C.

CLEAN UP

Clean tools and equipment with water before the material hardens.

PRECAUTIONS / LIMITATIONS

- The application temperature range of **EUCO PQ** is 5 to 35°C.
- If an epoxy coating will be applied, follow surface preparation procedures as directed by the coating manufacturer.
- In all cases, consult the Safety Data Sheet before use

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