

EPO CEMENT 020

Polymer Modified Cementitious Repair and Finish Mortar, Fine and Coarse Grades



DESCRIPTION

EPO CEMENT 020 is a cementitious polymer modified single component mortar system, based on a blend of Portland cements, water reducing agents and compatible water resistant polymers. The product is designed to give good adhesion and cohesion in plastic states and low water requirement resulting in low porosity and long durability.

EPO CEMENT 020 is available in two grades;

FINE GRADE:

It is suitable for the application in the range of feather edge to 1mm

COARSE GRADE:

It is suitable for application in the range of 1mm to 3mm and can be applied up to 6mm in multiple steps.

USES

EPO CEMENT 020 is designed for application to minor imperfections in concrete and masonry surfaces. It can be used in the following situations:

- Used as fair faced concrete after patch repairs to walls
- Filling pinholes, honeycombs in precast units prior to over coating
- General re-profiling over large area
- Suitable to use in marine structures

ADVANTAGES

Easy to use: can be brush, sponge or trowel applied. Workability retained for approximately 40 minutes.

Constant quality: Factory controlled pre-packed material eliminated site batching variations.

Adhesion: Excellent to sound concrete substrates and steel.

Chloride free: Excellent strength development without the use of chloride.

Water resistance: Water and weather resistant.

PRODUCT DATA

Form	Powder
Colour	White/Grey
Density	1.90 ± 0.20 Kg/Ltr
Chloride content (ASTM C1218)	< 0.01
Packing	20 Kg Kraft bag
Layer Thickness	Fine grade: up to 1mm
	Coarse grade: 1mm to 3mm
Consumption	1.5 Kg/m ² for 1mm thickness
Storage	12 months, without opening the packing

TECHNICAL SPECIFICATION-FINE GRADE

Test Name	Standard	Average Result
Grout Consistency (water Ltr/Grout Kg)	-	7.0 Ltr/20Kg
Bond Strength	ASTM C 321	0.98 N/mm ²
Compressive Strength 3 days 28 days	ASTM C 109	> 20 MPa > 40 MPa
Abrasion Resistance	EN 12808 - 2	345.8 mm ³
Flexural Strength 7 days	ASTM C 348	> 4 MPa
Setting Time (min) Initial Setting Time Final Setting Time	ASTM C 191 ASTM C 305	306 min 350 min
Linear Expansion	ASTM C 531	6.5 x 10 ⁻⁶ /°C
Water Absorption	ASTM C 413	2.8 %
Water Vapor Permeability	-	0.15 mm ³

TECHNICAL SPECIFICATION - COARSE GRADE

Test Name	Standard	Average Result
Grout Consistency (water Ltr/Grout Kg)	-	5.0 Ltr/20Kg
Bond Strength	ASTM C 321	1.3 N/mm ²
Compressive Strength 3 days 28 days	ASTM C 109	> 23 MPa > 30 MPa
Abrasion Resistance	EN 12808 - 2	394 mm ³
Flexural Strength 7 days	ASTM C 348	> 10 MPa
Setting Time (min) Initial Setting Time Final Setting Time	ASTM C 191 ASTM C 305	175 min 327 min
Linear Shrinkage	ASTM C 596	1.83 mm/m
Water Absorption	ASTM C 413	5.6 %
Water vapour Transmission	ASTM E 96	0.29 g/m ² /24hours

Ver 01/21

EPO GULF SPECIALITIES CO.

Kuwait, Amghara Industrial area

Block 4 Building 95 – 97 – 99

P.O box 12017 – Tel: +965 22272590

info@epogulf.com

WWW.EPOGULF.COM



EPO YAPI KIMYA CO.

Cement – Concrete Technology

Turkey, Istanbul, Tuzla, Orhanli

Tel: +90 2165932294

info@epo.com.tr

EPO CEMENT 020

Polymer Modified Cementitious Repair and Finish Mortar, Fine and Coarse Grades



INSTRUCTION FOR USE

SURFACE PREPARATION

Clean the surface and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposit or algae. Remove any laitance and expose the fine aggregates by light scrubbing or grit-blasting.

Oil and grease deposit should be removed by steam cleaning, detergent scrubbing or the use of proprietary degreaser. The effectiveness of decontamination should then be assessed by pull-off test.

The cleaned areas should be blown clean with oil free compressed air before continuing. All prepared areas should be thoroughly soaked with clean water immediately prior to the application of **EPO CEMENT 020**. Any residual surface water should be removed prior to commencement.

MIXING-FINE GRADE

Place 7±0.5 Liters of cool potable water into the mixer, and with the machine operation, add one full 20Kg bag of **EPO CEMENT 020** and mix continuously for 3 to 5 minutes until material becomes fully homogenous.

MIXING-COARSE GRADE

Place 5±0.5 Liters of cool potable water into the mixer, and with the machine operation, add one full 20Kg bag of **EPO CEMENT 020** and mix continuously for 3 to 5 minutes until material becomes fully homogenous.

Water addition may vary slightly according to both the ambient temperature and desired consistency of the mix, but it should not exceed the suggested limits.

For additional anti-dusting, or enhanced performance properties, add 1 Kg of **EPO LATEX SBR** to the gauging water until the desired consistency is achieved.

Note: In all cases **EPO CEMENT 020** must be added to the water and when using SBR water/powder ratio to be adjusted.

APPLICATION

Apply the mixed **EPO CEMENT 020** to the prepared substrate, up to desired thickness, by steel trowel. It should be applied with the minimum of working and be allowed to partly set before finally trowelling into a smooth finish. Thickness up to 6 mm can be achieved by multiple steps of application.

If a very smooth finish is required, a small amount of water may be flicked on to the surface of the **EPO CEMENT 020** with a paint brush prior to final trowelling.

Do not proceed with the application when rainfall is imminent unless in a sheltered or protected situation.

FINISHING

EPO CEMENT 020 is finished by striking off with a straight edge and closing with a steel or plastic float. Note that water can be drawn to the surface if "overworking" with the float occurs, and an unsightly finish may result.

Damp sponges or plastic floats may be used to achieve a desired surface structure, but care should again be taken not to overwork the surface.



CURING

Curing is not generally required. However, under extreme conditions-high temperature and drying winds-it may be prudent to use **EPO CURE** range of product as a curing agent.

EPO CURE range of product does not require any mechanical removal prior to over coating.

YIELD COVERAGE

FINE GRADE:

20Kg gives a yield of Approx.14 Liters at 35% water

One 20Kg bag covers 14 square meters at 1.0 mm thickness.

COARSE GRADE:

20Kg gives a yield of Approx.13 Liters at 25% water

One 20Kg bag covers 13 square meters at 1.0 mm thickness.

PRECAUTIONS

Cleaning: All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage system.

Protection: All work must be protected from rain and frost until fully hardened.

Fire resistance: The product is not flammable.

HEALTH AND SAFETY

The product is non-toxic but mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of prolonged irritation, seek medical advice.

EPO GULF SPECIALITIES CO.

Kuwait, Amghara Industrial area

Block 4 Building 95 – 97 – 99

P.O box 12017 – Tel: +965 22272590

info@epogulf.com

WWW.EPOGULF.COM



EPO YAPI KIMYA CO.

Cement – Concrete Technology

Turkey, Istanbul, Tuzla, Orhanli

Tel: +90 2165932294

info@epo.com.tr

EPO CEMENT 020

Ver 01/21