



Phosment[®] Q2

Fast setting and hardening Phosphate cement for Concrete repair & Corrosion protection.

Product description:

Phosphocement-type is a construction material. The powder mixture contains cement and fillers.

Applications:

1. For interior and exterior , vertical and horizontal concrete repair.
2. Completion and filling of holes and gravel pockets in horizontal and vertical concrete surfaces
3. Provides protection for the steel re-bars and rehabilitation of the reinforced concrete layer, which is damaged by corrosion, especially in the marine environment, in an environment of brines and organic liquids (diesel, oil and Kerosene))

Benefits:

- The hardened mortar undergoes rapid curing in air (self-curing)
- Excellent resistance to brine/salt/organic liquids such as oil, diesel & kerosene.
- Passivates metal and protects against corrosion (no need for primer)
- Achieves very high strength within hours (2-3 hours)
- Develops high adhesion to concrete, metals, gypsum and wood
- Thixotropic material, which has a convenient rheology that allows processing of casting, vibrating, spreading or dry shotcrete
- Pigment can be added
- Does not shrink
- Suitable for outdoor and indoor work
- Tested material suitable for use in contact with drinking water (IS 5453)
- Resistance to fire is checked according to IS 755 VI-4-4
- Good adhesion between layers. Thick layers can also be built over 10 cm

Application:

- Substrate must be fully cured and free from: dust, loose particles, curing compounds, oil and grease. The area for the repair must be saw cut to depth of 5 mm min.
- Steel and iron surfaces must be free from scale, rust oil and grease.
- The substrate surface must be wet prior to application. Avoid standing and puddles water.
- For dry shotcrete - best results for building up of a thick layer should be done in a single shot.
- For casting – mix 25 kg of **Phosment® Q2** with 3.75 liters of water. Mix 3-6 min. (300-500 r.p.m) to a Uniform mixture (please uses the entire bag and don't add more than the recommended amount of water)

Ambient temperature:

Should not be used under 5°C

Above 30°C the material should be stored in shade and cold water should be used

Cleaning tools:

Use water immediately after application.

Dried material can be removed by mechanical means.

Color /appearance: white off powder

Packaging: 25 kg bags

Specific gravity: 1.9 – 2.0 kg/l

Aggregate grading: 0-4 mm

Requirements according to EN 1504 Class R4:

Item	Results	Requirements for R4 class
Compressive strength	≥60	≥45 MPa
Adhesive Bond	≥ Mpa2.43	≥2.0 MPa
Capillary absorption	0.01 Kg/m ² /h ^{1/2}	≤ 0. 5 Kg/m ² /h ^{1/2}
Reaction to fire	Class A1	Euro class

Typical Properties:

Characteristic	Standard	Units	Value
Setting time, initial, at 20°C (68°F)	EN 196-3	min.	31
Setting time, final, at 20°C (68°F)			40
Consistency by flow table	EN 1015-3	mm	197
Compressive strength	EN 196-1	MPa	3 hours
3 hours			40.8
1 day			56.9
7 days			64.8
28 days	65.0		
Flexural strength	EN 196-1	MPa	3 hours
3 hours			6.6
1 day			6.9
7 days			9.3
28 days	12.0		
Resistance to Wear after 220 rounds, 28 days	IS 26 part 5	mm	0.99
Indirect tensile strength	ASTM C 496	MPa	3.1
Restrained shrinkage (ring test) ,1 day	IS 1920-1		No cracks
Capillary absorption coefficient	IS 1920-1	kg/m ² /h ^{1/2}	0.01
Length change/ drying shrinkage after 90 days	ASTM C 157	%	-0.045
Linear thermal expansion coefficient	ASTM C 531	1/C ⁰	7.56X10 ⁻⁶
Bond strength to Concrete	EN 1015-12	MPa	2.43

Clarifications: The results which are included in the above table were conducted by the Standards Institution of Israel.

The company has no responsibility to any caused damage due to use which is not in accordance with the supplied preparation instructions.

The use in **Phosment® Q2** is a recommendation and is strict to **Phosment® Q2** MSDS.