

# POLYCAP

## Highly Penetrative Surface Applied Capillary Waterproofing Coating

TDS\_Polycap\_GCC\_1211

Polycap is a unique surface applied water proofing and protection system which can withstand the most severe leakage situations when mixed with clean water and applied on concrete or masonry surface. The active chemicals present in Polycap penetrates deep into the water bearing capillaries, reacts with water and free lime and subsequently develops insoluble crystals and thus effectively prevents further infiltration of water. It remains in the body of concrete as a catalyst to reactivate the crystallization process whenever water enters the structure through newly formed capillaries. Polycap consists of grey or white cement, specially graded quartz sand fillers and a compound of active chemicals.

### CHARACTERISTICS

- ▶ Penetrates to the concrete capillaries and provides waterproofing as it becomes part of the concrete.
- ▶ Active ingredients of the system remain for a long period.
- ▶ In depth water proofing and protection.
- ▶ Can withstand both positive and negative pressures on the concrete face.
- ▶ Allows the concrete to breathe.
- ▶ Seals minor shrinkage cracks.
- ▶ Requires only on site addition of water

### FIELDS OF APPLICATION

- ▶ Can be applied to all structurally sound old and new concrete.
- ▶ Basement retaining wall, concrete slabs (floor, roof, balcony).
- ▶ Water retaining structures, swimming pools, sewage treatment plants, bridges.
- ▶ Concrete water tanks, lift well, inspection pits.
- ▶ Foundations, dams, tunnels and underground and marine structures.

### APPLICATION INSTRUCTIONS

#### Surface Preparation

Surface to be treated must be free from dust, oil, grease, residual curing compound, release oil, paint etc. Surface should have open capillary system. Static cracks should be filled with Polycap modified mortar and cured by water only. As the active chemi-

cal ingredients requires moisture to react, the surface should be pre-watered. Prior to the application of Polycap, the concrete surface must be damp, but not wet

#### Mixing

Slurry Coat: Always add water to Polycap, not in reverse order. Mix 6-7 lt. of water with 25 kg. of powder to get a thick creamy consistency.

#### Application

Slurry Coat: Polycap is normally applied by masonry brushes or by appropriate powder spray equipment. Apply the material in two coats. The second coat is to be applied at right angles to the first coat whilst the first coat is still green but firm (usually 3-4 hours after the first coat). The slurry should be used within 20 minutes after mixing. Do not add more water when the mixture starts to set, but stir well to improve the workability. When over coating with Polycap, apply it whilst the coating is still green. For further protection, apply a plaster or cement / sand mortar, when the Polycap is still tacky. Dry powder consistency: (For horizontal surfaces only) when the concrete has reached its initial set, sprinkle Polycap powder through a sieve and trowel it.

#### Curing

Polycap must be prevented from drying out too rapidly and should be kept damp for 5-7 days. Mist spraying and covering with Polythene sheet is effective. Curing compounds are unsuitable for use with Polycap system. Protect from weathering, sun, frost and wind for a similar minimum period. Tanks and other water retaining structures may be filled after 24 hours on application as crystal growth is accelerated by water pressure.

Note: Polycap cannot be used below 5°C. Cannot be used as additive to concrete / plaster.

## COVERAGE

1. Concrete surface to be backfilled: One coat of Polycap @ 0.75 kg/m<sup>2</sup>, followed by one coat of Polycap @ 1 kg/m<sup>2</sup>.
2. Water retaining structures, internal concrete wall surface: Two coats of Polycap @ 0.75 kg/m<sup>2</sup> brush apply.
3. Concrete Slabs: Polycap @ 1.5 kg/m<sup>2</sup> applied as slurry coat to hardened concrete or dry sprinkle and trowel on fresh concrete when it starts setting.
4. Construction Joints: Polycap @ 1.2 kg/m<sup>2</sup> as slurry / powder immediately prior to placing the next bay of concrete.
5. Blinding Concrete: Polycap @ 1.2 kg/m<sup>2</sup> applied in slurry / powder immediately prior to placing the overlaying concrete slab.

## CLEANING

Clean all the tools with water immediately after use. Hardened materials can be removed mechanically only.

## STORAGE & SHELF LIFE

Store under cover, out of direct sunlight and protect from extreme temperatures. Shelf life is up to 12 months when stored as per recommendations.

## SUPPLY

25 kg bags.

## HEALTH & SAFETY

As with all construction chemical products caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

2

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23 °C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Manufactured in G.C.C.

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