

## BC Rock plus

### Product Description:-

PLUS is a special waterproofing coating made of a mixture of cements, carefully controlled aggregates and special organic and inorganic additives. Its special formula improves the osmotic effect of the application allowing the penetration in the concrete through its capillary system. The product crystallizes inside sealing, waterproofing and protecting the concrete structure. It has been designed to be applied on fresh or cured concrete, pre-cast concrete, concrete blocks, cement plasters but also suitable on bricks and masonry.

### Advantages:

- Suitable for use in contact with drinking water.
- The penetration inside concrete provides internal sealing and protective effect. It seals cracks up to 0.4mm.
- 100% waterproof coating, even in permanent immersion applications subjected to high pressures.
- For indoor applications, especially basements, the coating resists negative hydrostatic pressure from ground water.
- Can be applied on dampened surfaces, being easy to use free of future maintenance costs.
- Resists the corrosive effects of salt water and atmospheric pollution.
- Longer lasting than paints and other coatings.
- Once it sets, can be painted over. It can also be covered with ceramic tiles as in swimming pools or decorative outdoor murals.
- Allows the substrate the water vapor diffusion.

### Application Fields:

The surface to be coated must be solid and clean, free of all traces of paints, coatings, efflorescence, loose particles, grease, oil, demolding agents, dust, gypsum plaster, etc. Remove by water pressure cleaning, sand blasting or other suitable mechanical method.

Wash and saturate the surface with water before applying the coating but check that there are no puddles or free-standing water remaining



## Application Fields:

- Waterproofing and coating drinking water tanks.
- As a waterproof coating for exterior and walls.
- Basements and below-grade structures subjected to positive or negative water pressure.
- Waterproofing and protection of concrete foundations, retaining walls and foundation slabs.
- As a waterproof coating for concrete block sand prefabricated panels.
- As a decorative, waterproof finish for silos and cooling towers in thermal plants.
- Repairing and waterproofing irrigation channels.
- As a coating to waterproof dams and retaining walls.
- To protect and waterproof concrete in water treatment plants.
- Waterproofing tunnels and shafts.
- Waterproofing swimming pools.

## Application by Brush, Broom or Spray:

Applications made at high temperature or sprayed; the water ratio can be increased slightly.

For standard applications, BC ROCK PLUS can be applied with a fiber type brush or broom such as our BCI BRUSH ® or BCI BROOM ®. Apply a thick layer to form a continuous and uniform coating; do not spread as if it were paint, apply only in one direction, the second coat should be spread in cross direction. Consumption is between 1 and 1.5 kg/ m<sup>2</sup> per coat, for a total consumption of about 2 – 2.5 kg/ m<sup>2</sup>. Waiting time between coats is from 6 – 8 hours minimum to 24hours maximum.

It can be also sprayed by means of a shot creting equipment. For applications made by spray which will be later subjected to water pressure, and in order to ensure a complete coverage of the surface, it is recommended to slide the broom over the material which has just been sprayed.

## STORAGE:

Twelve months in bags and eighteen months in drums respectively, in its original unopened packaging. Store in a dry covered place protected from damp, frost and direct sunlight, with temperatures above 5°C.

## Safety and Health:

BC ROCK PLUS is an abrasive compound, so protective rubber gloves and safety goggles must be used to prepare the mixture and apply it. In case of skin contact, wash affected areas with water and soap. In case of eye contact, rinse thoroughly with clean water, but do not rub. If irritation persists, seek medical attention



## Technical Data:

<b>Product characteristics</b>	
CE Marking, EN1504-2	
Description. Mortar for protection of concrete. Coating(C). Principles / Methods. Protection against ingress with coating (Principle 1-PI / 1.3), Moisture control with coating(Principle2-MC/2.2)andIncreasingresistivitybylimitingmoisturecontentwithcoating(Principle8-IR/8.1)	
General appearance and colour	White/Grey powder
Maximum aggregate size, (mm)	0,63
Density for powder, (g/cm <sup>3</sup> )	1,15 ±0,10
Mixing water, (% by weight)	24-28
Density for fresh mortar, (g/cm <sup>3</sup> )	1,85 ±0,10
<b>Application and curing conditions</b>	
Minimum application temperature for substrate and ambient, (°C)	>5
Pot life at 20 °C&50% R.H., (min)	30 – 40
Minimum/Maximum waiting time between coat sat 20°C&50%R.H., (h)	6 –8/12–16
Drying time at20°C&50% R.H., (h)	4 –6
Curing time at20 °C&50% R.H., (d)	
- Mechanical load: covering with gravel, renders, plasters or tiles	3
- Permanent immersion	7



<b>Cured product characteristics</b>	
Density for cured mortar, (g/cm <sup>3</sup> )	1,75 ±0,10
Depth of penetration of water under direct pressure, EN12390-8 (kPa)	850
Depth of penetration of water under indirect pressure, EN12390-8 (kPa)	250
Permeability to water vapour, ENISO7783-1/-2. Classification V(g/m <sup>2</sup> ·day)/SD(m)	Class I: Permeable to water vapour 340,22 / 0,06
Permeability to water and capillary absorption, EN1062-3. w(kg/m <sup>2</sup> ·h <sup>0,5</sup> )	0,03
Compressive strength at 28 days, EN13892-2 (MPa)	>40,7
Flexural strength at 28 days, EN13892-2 (MPa)	>8,0
Adhesion on concrete at 28 days, EN1542 (MPa)	1,61
Suitability for contact with potable water, BS6920	Suitable
<b>Consumption*</b>	
Consumption by dusting method, (kg/m <sup>2</sup> ) Consumption per coat/total application, (kg/m <sup>2</sup> )	1,5 –2,5 1,0 - 1,5 /2,0-3,0

### **Cleaning:**

Tools and equipment must be cleaned with water immediately after use. Once BC ROCK PLUS hardens, only product can be removed by mechanical methods.

### **CONSUMPTION:**

Estimated consumption applied by brush, broom or spray is between 1 and 1.5 kg/ m<sup>2</sup> per coat, for a total consumption of about 2.5 – 2 kg/m<sup>2</sup> in two coats. Porous surfaces, substrate conditions and application method can vary this estimated consumption.

Applied by dusting on fresh concrete, estimated consumption of BC ROCK PLUS is about 2.5-1.5kg/m<sup>2</sup>. Congested reinforced slabs can increase consumption up to 25 -20%.

A preliminary test on-site will determine consumption exactly

### **Application Conditions:**

Optimum application temperature is 10° - 30°C. For summer or hot temperatures (>30 °C), wet surface plenty of water. You can water surface even after BCI SEAL has been applied if it is noticed that the drying process is too fast.

Do not apply when temperature is below 5°C or if such temperatures are expected within 24 hours after application. Do not apply on frozen or frosted surfaces. Do not apply if rain is expected within 24 hours after application

#### **Building Chemistry Industry**

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