



# Bosco seal Concentrate

## CONCRETE WATERPROOFING BY CRYSTALLIZATION

### DESCRIPTION

Bostik Bosco seal Concentrate is a surface applied material which waterproofs and protects concrete in-depth. It provides a deep seal penetration and permanent protection against fresh and salt water under pressure. It consists of Portland cement, specially treated quartz sand and a compound of active chemicals.

### KEY BENEFITS

When Bosco seal Concentrate is applied to a concrete surface, the active chemicals combine with the free lime and moisture present in the capillary track, to form insoluble crystalline complexes. This is known as crystallisation process. Once the crystals have formed, they remain permanent. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress. However, the layer will still allow the passage of water vapour through the structure (i.e. the concrete will still be able to “breathe”)

Further contact with water will reactivate the sealing process. Thus the lower depths of the concrete form an integral mass with the surface, which cannot be blown off by hydrostatic pressure. In addition to waterproofing the structure, Bosco seal Concentrate protects concrete against seawater, wastewater, aggressive ground water and certain chemical.



### FEATURES AND BENEFITS

- Can withstand up to 30 meters hydrostatic pressure
- Complies with SS 375:1994 and PUB approved
- Can be applied both internally or externally
- Excellent adhesion
- Non-toxic
- Durable - lasts as long as the concrete
- Economical and simple to apply
- Protects concrete and reinforcement against corrosive water borne substances
- Crystalline action reactivated by contact with water, providing dormant additional protection

### TYPICAL APPLICATIONS:

- Water tanks, Portable water tanks & tower
- Concrete slabs (floor / roof/ balcony)
- Tunnels and Foundations
- Retaining walls
- Construction Joints
- Dock gates & Dams
- Sewage treatment plants

- Lift shaft
- Reservoirs
- Swimming pools

### TECHNICAL DATA

BOSCOSEAL CONCENTRATE	
Appearance	Grey Powder
Specific gravity	1.6
Pot life at 25°C	20 minutes
Initial set at 25°C	60 minutes
Water permeability (BTD/TP/02/2002)	$8.5 \times 10^{-13}$
Water penetration (DIN 1048 : Part 5 : 1991)	< 10mm
Tensile adhesion strength (BS EN 1015-12:2000)	0.70 N/mm <sup>2</sup>
Potable water approval	PUB - Singapore

## APPLICATION GUIDELINES

### Surface Preparation

All concrete to be treated with Boscoseal Concentrate must be clean and have an "open" capillary system. Remove laitance, dirt, grease etc. by means of high pressure water jetting, wet sandblasting or wire brushing.

Faulty concrete in the form of cracks, honeycombing, etc. must be chased out, coated with Boscoseal concentrate.

Surfaces must be carefully pre-watered prior to the Boscoseal concentrate application. Dampen ( no free standing water) the concrete surface with clean water prior to application.

Note: Boscoseal concentrate is not a decorative material.

### Mixing

Pour water into a clean suitable mixing vessel, then gradually add the Boscoseal concentrate into the water while mixing with a low speed paddle mixer until consistency of thick oil paint is obtained.

Only mix suitable quantities that can be applied within 20 minutes and stir mixture frequently. If the mixture starts to set, do not remix with additional liquid, simply re-stir to restore workability. Mixing Ratio: use 5 parts Boscoseal concentrate to 2 parts water by volume.

### Application method

**Slurry concentrate** - Apply one or two coats (according to specification) of Boscoseal Concentrate using a masonry brush or appropriate power spray equipment. When two coats are specified, apply the second coat whilst the first coat is still "green".

**Dry Powder Consistency** - (for horizontal surfaces only)  
The specified amount of Boscoseal Concentrate is distributed in powder form through a sieve and trowelled into the freshly placed concrete once this has reached initial set (when you walk on the concrete you leave an imprint of approx 10mm).

Post Treatment - Once the Boscoseal Concentrate treatment has reached initial set, moist cured with a fine fog spray of water 2-3 times per day for three days. In hot or windy conditions it should be cured more frequently. During the curing period the Boscoseal Concentrate treatment must be protected from rainfall, frost and water puddles.

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### Coverage

- For Concrete Surfaces to be Backfilled - One coat of Boscoseal Concentrate at 0.75kg/m followed by one coat at 1kg/m. Brush or spray applied.
- Water Retaining Structures, Internal Concrete Wall Surfaces - Two coats of Boscoseal Concentrate each at 0.75kg/m<sup>2</sup>. Brush or spray applied.
- Concrete slab (hardened concrete) - Apply Boscoseal Concentrate at 1.0kg/m in one slurry coat or dry sprinkle
- Concrete slab ( fresh concrete ) - trowel apply to concrete when it has reached initial set.
- Construction joints - Boscoseal Concentrate at 1.5kg/m applied in slurry or dry powder consistency immediately prior to placing the next lift / bay of concrete.
- Concrete slab (hardened concrete) - Apply Boscoseal Concentrate at 1.0kg/m in one slurry coat or dry sprinkle
- Binding concrete - Apply Boscoseal 21 at 1.2kg/m<sup>2</sup> immediately prior to placing the overlay concrete slab.

### Cleaning

Thoroughly clean all tools and equipment with water after use.

### Storage

Boscoseal Concentrate should be stored at room temperature (max 38 C), kept dry and out of direct sunlight. Shelf life is 1 year in tightly sealed original bag.

### Packaging

Boscoseal Concentrate is supplied in 20kg pail.

### Health and Safety

Boscoseal Concentrate should only be used as directed. We always recommend that the Health & Safety Data Sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered for your personal protection.

#### DISCLAIMER:

The information in this Technical Data Sheet is intended for the assistance of users and is of a general nature. It reflects the extent of our knowledge and experience of our products and is based on tests which we believe to be reliable. However, no guarantee of accuracy can be given due to the wide range of surfaces, environmental and field conditions and variations encountered in raw materials, manufacturing equipment and methods at the place where the work is performed. Some of these will be beyond our knowledge and control. Users are asked to make sure that the TDS in their possession is the latest issue. Likewise, we recommend users carry out their own tests to determine the suitability of the product for their particular purposes.

Any claim for a defective product must be filed within 30 days of discovery of a problem and must be submitted with written proof of purchase. Claims are not transferrable or assignable and extend only to the original purchaser/user. Bostik reserves the right to inspect alleged failure and no responsibility will be accepted unless Bostik is given the opportunity to do so. Bostik limits its liability to the replacement of the product/s proven faulty.

BOSTIK HOTLINE

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