HIGHSEAL 200

Complete Waterproofing by Crystallization

DESCRIPTION

HIGHSEAL 200 is a surface applied material which waterproofs concrete in-depth.
Available in grey or white, it is a complex blend of high quality cements, aggregates and complex active chemicals.

When HIGHSEAL 200 is applied to a concrete surface, the active chemicals combine with free lime and water present in the capillary tracks to form insoluble complex crystalline structures.

These crystals block the capillaries and any minor cracks in the concrete to prevent any further ingress of water even if it is under pressure.

ADVANTAGES

- Needs only the addition of clean water.
- Waterproofs.
- Protects against aggressive water and sea water.
- Suitable for potable water structures.
- Protects against positive and negative water pressure.

USE ON

- Basement retaining wall.
- Concrete slabs.
- Construction joints.
- Water retaining structures.
- Swimming pools.
- Waste water treatment.
- Sea walls.

TECHNICAL INFORMATION

Binder	Ordinary Portland Cement
Colour	Grey/White
Size of Aggregate	0 – 0.6mm
Pack Size	25kg
Water Requirement	5 : 2 (powder : water)
Setting time	60 mins. (approx)
Pot Life	30 minutes dependant on temperature.
Storage & Shelf Life	Minimum 12 months when stored in original packaging.

TEST RESULTS

DETERMINATION OF WATER PERMEABILITY DIN 1048: PART 5:1991

Control Specimen (without surface coating)				Test Specimen (with surface coating HIGH SEAL 200)		
Specimen ID	1	2	3	4	5	6
Maximum depth of Water penetration (mm)	48	47	45	Nil	Nil	Nil
Mean maximum depth of water penetration (mm)	46.7			Nil		

TESTING OF PHYSICAL PROPERTIES

Test Description	Unit	Test Method	Age/ Days	Specimen Results			Average
				1	2	3	
Pull Off Strength	(N/mm^2)	BS 1881-207	28	0.401	0.400	0.400	0.400

Note: The above technical information is based on controlled laboratory conditions. However, there may be variation in yield and coverage depending on the ambient weather and site conditions.

DIRECTIONS

Preparation

All concrete to be treated with HIGHSEAL 200 must be clean and have an open capillary system. Remove dirt, grease, laitance etc.
Faulty concrete in the form of cracks, honeycombing, etc. should be chased out and coated with HIGHSEAL 200 and filled with concrete repair mortar.
Surfaces must be carefully pre-wetted before application of HIGHSEAL 200. The surface must be damp not wet.

Mixing

Put clean iced water in a clean mixing vessel, add the powder whilst mixing until the product has the consistency of thick gloss paint.
The use of iced water is essential to achieve sufficient working time.

Application

If applying by brush, two coats are required, second coat at right angles to first coat.
If spraying one good even coat is usually sufficient.

Coverage

Concrete to be back filled in foundations or bridge abutments.
One coat 0.7 kg/m^2
Second coat 1.0 kg/m^2.

Water retaining Structures and internal concrete surfaces.
2 coats each @ 0.75 kg/m^2.

Concrete slabs

Hardened concrete – Apply one coat@ 1.5kg/m^2.

Fresh Concrete – Trowel apply when concrete has reached initial set 1 kg/m^2 or apply dry powder as dry-shake and trowel in @ 2kg/m^2.

Construction joints apply as slurry or dry powder immediately prior to placing next list or bay of concrete @2kg/m^2.

PRECAUTIONS

Application of the HIGHSEAL 200 should be done according to the procedure mentioned in this technical data sheet. We will not be held responsible for any claim arising out of non-performance of the product due to incorrect application procedure or usage of product for non-recommended purpose.
Please contact technical team for more details on application of HIGHSEAL 200 for any purpose other than mentioned above or on surfaces with other special construction additives.

HEALTH AND SAFETY

This product contains cement, and contact with skin may cause irritation. It should not be inhaled, and a properly designed and maintained face mask should be used whilst handling, pouring and mixing the powder. Avoid contact with the product by working carefully, using a barrier cream and wearing protective gloves. If any contact does occur, wash thoroughly with soap and water. Use eye protection. Avoid contact with eyes, if such contact occurs irrigate with water for 20 minutes and seek medical advice.
If mistakenly ingested, drink plenty of clean water and seek medical advice.