VARADEX PREMIUM

SURFACE APPLIED, CEMENTITIOUS, IN-DEPTH CRYSTAL GROWTH WATERPROOFING TREATMENT FOR CONCRETE

DESCRIPTION

VARADEX PREMIUM is an in-depth cementitious waterproofing compound consisting of grey Portland cement and specially treated quartz sand blended with a range of active chemicals.
After application, **VARADEX PREMIUM** supplies active ingredients to the host concrete under the forces of osmosis which react with the free lime in the host concrete to poduce dendritic crystals. The crystals formed effectively block the pores, capillaries and minor cracks in the host concrete preventing the passage of liquid water, however the **VARADEX PREMIUM** treated concrete will still allow the passage of water vapour through the structure, thereby allowing the structure to breathe.
The fact that the waterproofing takes place from within the host concrete means that even under very high negative side water pressures, the waterproofing will not blister or be pushed off the wall.

USES

VARADEX PREMIUM can be applied to either the pressure or non-pressure faces of concrete and is excellent for solving the problem of water seepage through porous or cracked concrete in both new and old structures. **VARADEX PREMIUM** is ideal for treating concrete surfaces where the high pressure face is not easily accessible.
Typical applications include; lifts pits, basement walls, concrete floor slabs, balconies, water storage tanks, swimming pools, sewerage treatment plants, canals and bridges etc.

ADVANTAGES

- In-depth waterproofing
- Permanentaly active
- Applied to either the pressure or non- pressure face of concrete.
- Waterproofs static cracks and capillaries up to 0.3 mm width.
- Suitable for potable water contact.
- Compatible with the host concrete.
- Non-toxic
- Suitable for permanent sunlight exposure after curing.
- Able to withstand a water head in excess of 100 metres.
- Colour compatible with the host concrete.
- Priming not required to clean, well prepared concrete surfaces.

TYPICAL PROPERTIES

Form	Cementitious powder
Colour	Cement grey
Bulk density	1.15 – 1.35 kg/ltr
Initial setting time	40 – 80 minutes
Full cure time at 20℃ 50% rh	5 days
Physical or chemical change	Chemical cure
Application temperature	5 – 30℃
Service temperature (continuous ambient)	- 40℃ to 120℃

CHEMICAL RESISTANCE :

VARADEX PREMIUM protects concrete against sea water, waste water, aggressive ground water and a range of chemical solutions. **VARADEX PREMIUM** is approved for use in contact with potable water and is therefore suitable for the treatment of water storage tanks, reservoirs, water towers etc.

MAINTENANCE

No special requirements, any damage identified during normal inspections should be water blasted clean, repaired and recoated as appropriate.

COVERAGE

Water retaining structures and internal concrete walls :

Apply two coats by brush or spray at an application rate of 0.75 kg/m² per coat.

Concrete floors and decks :

Apply one coat at an application rate of 1.2 kg/m² by brush onto hardened concrete, or dry sprinkled onto fresh wet concrete after initial set, and power trowelled into the surface.

Construction joints :

Apply one coat by brush at an application rate of 1.5 kg/m², applied to the abutting slab immediately before the next concrete pour.

Blinding concrete :

Apply one coat by brush at an application rate of 1.2 kg/m², or dry sprinkled onto the blinding slab immediately before pouring the overlaying slab.

CURING AND PROTECTION

Concrete surfaces treated with **VARADEX PREMIUM** must be kept damp and must be protected from the drying action of direct sunlight for a minimum period of 5 days after application.

Protect all treated surfaces from wind and frost, by covering with plastic sheeting, damp Hessian or equivalent.

CLEANING :

Tools and equipment should be cleaned with water immediately after use.

LIMITATIONS

VARADEX PREMIUM works by reacting with the free lime in the host concrete. For this reason **VARADEX PREMIUM** should not be used on substrates which do not contain free lime. Examples of unsuitable substrates include brick, stone ceramics, granite and marble. Concrete blocks and hebel blocks are also unsuitable because of their very low lime and cement content and the very porous nature of these blocks. Water seepage through these substrates can be treated using **VARASHIELD 20** surface applied cementitious waterproofing membrane.

Where possible, avoid the application of **VARADEX PREMIUM** to flowing cracks or weeping porous concrete. If application to these surfaces is required mix the **VARADEX PREMIUM** with **VARASET NO 1**and follow the directions outlined in 'Accelerating the cure'.

COVERAGE

VARADEX PREMIUM	1.0 – 1.5 kg/m² 16 – 25 m² /25 kg
VARASHIELD 20	6 – 12 kg/m²

PACKAGING

VARADEX PREMIUM	25 kg bag
VARASET NO 1	0.650 kg bottle
VARASHIELD 20	28 kg pack
VARAPLUG	10 kg bag

STORAGE

12 months in original containers stored in cool, dry conditions i.e. not exceeding 30℃. Storage above this temperature may reduce storage life.

EQUIPMENT

Dry powder application - 2 mm sieve.

Slurry application - Plasterers brush, short handled brush or long handled brush.

Spray application - Hopper Gun, air compressor capable of 3 bar pressure and an air capacity of 220 litres/minute.

HEALTH AND SAFETY

Refer application manual