

VOLSEAL® 200

CEMENTITIOUS WATERPROOFING BY CRYSTALLIZATION

DESCRIPTION

VOLSEAL 200 is a single component, surface applied material, which waterproofs and protects concrete in-depth. It consists of grey Portland cement, specially treated quartz sand and a compound of active chemicals. VOLSEAL 200 is supplied in powder form in 25kg tubs, and needs only to be mixed with clean water prior to application.

When VOLSEAL 200 is applied to concrete surfaces, the active chemicals combine with the free lime and moisture present in the capillary track to form insoluble crystalline complexes. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress, even under hydrostatic pressure. In addition to waterproofing the structure, VOLSEAL 200 protects concrete against seawater, wastewater, aggressive ground water and certain chemical solutions. VOLSEAL 200 is not a decorative material.

APPLICATIONS

To provide waterproofing continuity across the top of structural foundation surfaces such as pad foundations, pile caps, ground beam etc., where active CETCO waterproofing membranes cannot be installed.

INSTALLATION

Preparation: All concrete to be treated with VOLSEAL 200 must be clean and have an 'open' capillary system. Remove laitance, dirt, grease etc by means of high pressure water jetting, wet sand-blasting or wire brushing. Defective concrete in the form of cracks, honeycombing, etc must be chased out, coated with VOLSEAL 200 and filled flush with proprietary repair mortars. Surfaces must be pre-wetted with clean water prior to the VOLSEAL 200 application, but be free of standing water (damp not wet).

Mixing: Pour water into a clean suitable mixing vessel, then gradually add the VOLSEAL 200 powder into the water while mixing with a low speed paddle mixer until a consistency of thick oil paint is obtained.

For application as a slurry coat, VOLSEAL 200 requires approximately 9–10 litres of water per 25kg bag of material.

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 water, simply re-stir to restore workability.

Mixing Ratio: use 5 parts VOLSEAL 200 to 2 parts water by volume.

Application Method: Slurry Coat Application – Apply one or two coats (according to specification) of VOLSEAL 200 using a masonry brush or roller. When two coats are specified, apply the second coat whilst the first coat is still "green."

Dry Powder Application (for horizontal concrete surfaces only) – The specified amount of VOLSEAL 200 is distributed in powder form through a sieve and trowelled into the freshly placed concrete once this has reached initial set.

Curing – Once VOLSEAL 200 has reached initial set, moist cure 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 VOLSEAL 200 must be protected from rainfall, frost and water puddles.

Usage: VERTICAL CONCRETE SURFACES (internal and external). Two coats of VOLSEAL 200 at 0.75 Kg/m² per coat, applied by brush or spray equipment. Apply the second coat at right angles to the first.

CONCRETE SLABS AND FOUNDATIONS. One slurry coat of VOLSEAL 200 at 1.00 Kg/m² applied to hardened concrete, or dry sprinkled and trowel applied to fresh concrete when this has reached initial set.

LIMITATIONS

NOTE. Do not apply VOLSEAL 200 at temperatures below +5°C. Volseal 200 cannot be used as an additive to concrete or plaster / render etc.

PACKAGING

VOLSEAL 200 is supplied in 25 kg plastic tubs.

SHELF LIFE

12 months when stored in a dry environment; product must be kept in original packaging that is unopened and not damaged.

STORAGE

Store in a dry environment off the ground.

SAFETY

VOLSEAL 200 contains cement and is irritating to eyes and skin. VOLSEAL 200 may cause sensitisation by skin contact. Keep out of reach of children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

For further information please refer to product Safety Data Sheet.

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PHYSICAL AND TECHNICAL SPECIFICATIONS	
CHARACTERISTICS	VALUES
Hydrostatic pressure resistance	>12 bar @28 days
Colour	Cement grey
Bulk density	1.25
Initial Setting time @ 20°C	60 minutes
Tensile Adhesion BS EN 1015-12	0.70N/mm ²
Water permeability (BTD/TP/02/2002)	< 5.0 x 10 ⁻¹³
Water penetration DIN 1048: Part 5: 1991	< 20 mm
Fire Testing – Non-Combustibility BS 476-4	Non-combustible