Viacrete Crystalline Waterproofing

PRODUCT DESCRIPTION:

Viacrete Crystalline Waterproofing is a cement-based slurry waterproofing system that uses advanced crystal formation technology. When applied to concrete, the active chemicals in the formula react with moisture and free lime to form long-lasting, insoluble crystals. These crystals grow deep inside concrete pores, capillaries, and minor cracks, creating a permanent barrier to water ingress from any direction.Unlike surface coatings or membranes, Viacrete Crystalline Waterproofing becomes an integral part of the concrete, delivering durable and maintenance-free waterproofing from within.

Technical Details

Property	Result
Appearance	Grey powder
pH Value	> 11
Drying Time	~1 hour
Recoating Time	2–4 hours
Water Permeability	> 85% reduction over control
Chloride Content	Nil
Shelf Life	6 months (unopened)
Packaging	25 kg bag
Coverage	8–9 m^2 per 25 kg at 2 mm DFT

KEY FEATURES & BENEFITS

- Permanent Waterproofing – Crystals block pores and capillaries deep inside the concrete
- Active Response – Reactivates in the presence of water to reseal minor cracks
- Dual-Side Protection – Can be applied from both the positive and negative sides
- Safe for Potable Water – Suitable for water tanks and reservoirs
- No Surface Priming Needed – Saves time on preparation
- No Protection Boards Required – Can be backfilled directly after curing
- Reduces Water Permeability – Over 85% reduction compared to untreated concrete
- Economical & Reliable – Long-term protection at low maintenance cost

RECOMMENDED USES

- Water tanks and water retaining structures
- Swimming pools, lift pits, and sumps
- Roof decks, podiums, and slabs
- Precast elements, silos, and tunnels
- Bridges, highways, and marine structures
- Pipes, carparks, and concrete repair zones

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2. MIXING

- Mix 25 kg of powder with 8 litres of clean water
  Always add powder to water
- Stir with a slow-speed drill and paddle until a smooth, lump-free mix is formed
- Use mix within 30 minutes – do not add extra water to stiffened material

3. APPLICATION

- Apply slurry using a stiff brush
  Work material into damp concrete, filling all pores
- First coat should be applied in one direction; second coat in the opposite direction
- Apply second coat when the first is touch-dry (2–4 hours)

SHELF LIFE & STORAGE

- Store in a cool, shaded area, away from direct sunlight and moisture
- Shelf life: 6 months in unopened packaging

PACKAGING

Available in 25 kg moisture-resistant bags

SAFETY PRECAUTIONS

- Use protective gloves, safety goggles, and barrier creams during handling
- In case of skin contact: wash with soap and water
- In case of eye contact: flush immediately with clean water and seek medical advice
- If inhaled or ingested: move to fresh air or seek immediate medical help
- Refer to the product MSDS for detailed handling and safety information

Application Instructions

1. SURFACE PREPARATION

- Clean surface to remove dust, paint, oil, laitance, and other contaminants
- Surface must have an open capillary structure for the crystals to penetrate
- Acid etch, sandblast, or water blast smooth surfaces if necessary
- Repair cracks, honeycombs, and construction joints before application
- Saturate surface with clean water before applying the slurry

4. CURING

- Keep surface moist with fog spray or damp hessian for 12–15 days
- Protect from wind and direct sunlight during early stages
- Avoid using curing compounds
  Backfilling can begin once curing is completed

LIMITATIONS

- Not suitable for use in expansion joints or structural/moving cracks
- Do not apply on painted, sealed, or coated surfaces without proper surface prep
- Application temperature must be above 8°C and below 35°C
- Not recommended for areas where constant movement or vibration is expected
- Do not add extra water to rework stiffened material
- Curing must be done properly to achieve full performance
- Not suitable for surfaces where hydrostatic pressure is extremely high unless reinforced properly