

Technical Data Sheet

HR CRYSTAL SEAL

Crystalline Waterproofing Compound



Product Description

HR Crystal Seal is a high-performance crystalline waterproofing compound for concrete and masonry structures. It penetrates deep into the substrate, reacts with moisture and free lime to form insoluble crystals, effectively sealing capillaries, micro-cracks, and pores. It provides long-term, integral waterproofing that becomes a permanent part of the concrete structure.

Applications

- Basements, foundations, and retaining walls
- Water tanks, reservoirs, and swimming pools
- Tunnels, subways, and underground structures
- Roof slabs and terraces
- Concrete structures exposed to positive or negative water pressure

Key Features & Benefits

- Forms permanent crystalline waterproofing inside concrete
- Resistant to positive and negative water pressure
- Reduces permeability and protects against chemical attack
- Compatible with fresh or existing concrete
- Eco-friendly, non-toxic, and safe for potable water contact
- Easy to apply on horizontal and vertical surfaces



Technical Properties

Property	Typical Value	Test Method
Appearance	Grey Powder	
Bulk Density	1.2 – 1.4 g/cm ³	
pH	> 11	
Water Solubility	Insoluble crystals formed in capillaries	
Application		
Temperature	+5°C to +40°C	
Coverage	1.0 – 1.5 kg/m ² per coat (depends on surface porosity)	
Reaction Time	Begins within 24 hours	
Final Effect	Fully crystalline waterproofing after 7 days	



Method of Application

For New Concrete:

1. Mix HR Crystal Seal with cement and sand as per recommended dosage.
2. Apply as a surface treatment on fresh concrete or add to the concrete mix.

For Existing Concrete:

1. Clean the surface thoroughly; remove dust, laitance, loose particles, and oil.
2. Apply the compound in a slurry form with clean water using brush, roller, or spray.
3. Keep surface damp for 24–48 hours to allow penetration and crystalline formation.

Surface Preparation

- Ensure the substrate is sound, free from loose particles, dust, grease, and oil.
- For damaged or cracked concrete, repair before application.
- Saturate the surface lightly with water before applying the slurry.

Storage & Shelf Life

- Store in a dry, cool place
- Keep bags tightly sealed
- Protect from moisture
- Shelf Life: 12 months in unopened original packaging

Health & Safety

- Non-toxic and safe to handle
- Avoid prolonged skin contact; wash immediately if contact occurs
- Use protective gloves and goggles
- Refer to MSDS for detailed safety and handling instructions

Limitations

- Not suitable for constantly flowing water leaks without pre-treatment
- Avoid applying on frozen or excessively hot surfaces
- Requires damp curing for optimum crystalline formation

Disclaimer

The information contained in this Technical Data Sheet is based on laboratory tests and field experience. Performance may vary depending on substrate conditions and application methods. The manufacturer is not responsible for improper usage.

