



CR 18

Cristalline Waterproofing Compound

Pack Size
20Kgs

TDS Technical Data Sheet



Product Description

CR-18 is a cement-based crystalline waterproofing system formulated to prevent water infiltration and seepage in concrete and mortar structures. When mixed with water and applied to a cementitious surface, it penetrates the capillary network and forms insoluble crystalline structures that block water pathways, ensuring long term protection against water ingress. This advanced system is designed to work as a pore blocker and enhances concrete's durability by improving its resistance to moisture and chemical attacks.

Key Features & Benefits

- **Deep Penetrating Action:** Forms permanent waterproofing by sealing capillaries.
- **Dual-Side Protection:** Effective for both positive and negative side waterproofing applications.
- **Self-Healing Properties:** Can seal hairline cracks over time.
- **Enhanced Durability:** Becomes integral to concrete, improving chemical resistance.
- **Vapor Permeability:** Allows the concrete to breathe, preventing trapped moisture issues.
- **Easy Application:** Can be used as a coating, dry shake, or integral admixture.
- **Non-Toxic & Environmentally Friendly:** Safe for potable water applications.

Recommended Uses

CR-18 is suitable for various waterproofing applications, including:

- **Concrete structures exposed to constant moisture.**
- **Reservoirs, water tanks, and treatment plants.**
- **Underground parking structures, tunnels, and basements.**
- **Sewage treatment plants and marine structures.**
- **Swimming pools, podiums, and balconies.**
- **Bridge decks and subways.**

Technical Specifications

Property	Value / Standard
Appearance	Grey Powder
Chemical Base	Cement, crystalline compounds

Packaging	20 kg bag
Shelf Life	6 months (sealed, unopened)
Storage Conditions	Store in dry conditions (5°C - 40°C)
Water Penetration (EN 12390-8)	Minimal penetration at 5 bar
Compressive Strength (ASTM C109)	≥ 30 MPa
Flexural Strength (ASTM C348)	≥ 7 MPa
Pot Life	~40 minutes at 30°C
Application Thickness	1-2 mm per coat
Coverage	1.2 kg/m ² per coat (min. 2 coats)

Mixing & Application Instructions

Application Type

Crystalline Slurry Coating

Crystalline Dry Shake

Integral Waterproofing Admixture

Mixing Ratio (Water: Powder)

0.28 - 0.30

No mixing required

0.8 – 1.0% by weight of cement

Surface Preparation

1. Ensure the substrate is clean, structurally sound, and free of contaminants like dust, oil, or laitance.
2. Pre-wet the concrete surface until it reaches Saturated Surface Dry (SSD) condition.
3. Repair cracks, joints, and honeycombs using a polymer-modified repair mortar.
4. For integral waterproofing, ensure CR-18 is added at the batching stage.

Application Methods

As a Crystalline Coating

1. Mix CR-18 with water in a clean container using a mechanical mixer at low speed (~300-500 rpm).
2. Apply the first coat with a stiff-bristle brush or slurry sprayer, working the material well into the surface.
3. Apply the second coat within 4-6 hours, ensuring complete coverage.
4. Protect the coating from direct sun, wind, and rain for at least 24 hours.

As a Dry Shake Application

1. Broadcast CR-18 powder uniformly onto freshly poured concrete.
2. Trowel-finish the surface to ensure complete integration into the concrete.

As an Integral Waterproofing Admixture

1. Add CR-18 to the concrete during batching, ensuring uniform dispersion.
2. Follow standard mixing procedures to achieve optimal performance.

Curing

- Cure for at least 5 days using a moist curing method.
- Full crystalline development occurs over 28 days.

Precautions & Limitations

- Do not apply on old rendered substrates.
- Avoid applying in extreme temperatures below 10°C or above 40°C.
- For best results, use fresh concrete or mortar with proper mix design.
- Not recommended for surfaces previously treated with water-repellent coatings.

Cleaning of Tools & Equipment

- Wash tools immediately after use with clean water.
- Hardened material can only be removed mechanically.

Packaging & Storage

Packaging: 20 kg bag

Storage Conditions: Store in dry conditions at 5°C - 40°C 6 months

Shelf Life : unopened packaging

Health & Safety Precautions

- Wear protective gloves, goggles, and dust masks during mixing and application.
- Avoid direct contact with skin and eyes.
- In case of eye contact, rinse immediately with plenty of water and seek medical attention.
- Avoid inhalation of dust; use in well-ventilated areas.
- Keep out of reach of children.

Pack Size

20Kgs



Data Reliability

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

The information and recommendations regarding the application and end-use of Carbolink products are provided in good faith based on our current knowledge and experience. Due to variations in materials, substrates, and actual site conditions, no warranty of merchantability or fitness for a specific purpose can be inferred. The user must determine the product's suitability for the intended application. Carbolink reserves the right to change the properties of its products. All proprietary rights of third parties must be observed. Orders are subject to our current terms of sale and delivery. Always refer to the most recent local Product Data Sheet, available upon request.