

Manta CW-2K

Two-Component Polymer-Modified Cementitious Waterproofing Coating

Description

Manta CW-2K is a two-component, water-borne waterproofing coating formulated from a scientific blend of organic and inorganic materials.

Part A (Liquid): A high-performance modified polyacrylate emulsion combined with specialized additives.

Part B (Powder): A proprietary blend of high-alumina and high-ferroaluminate specialty cement, active inorganic powders, and reinforcing additives.

Upon mixing and curing, it forms a tough, continuous elastomeric waterproofing membrane that combines the high tensile strength and flexibility of polymers with the excellent mechanical resilience and durability of cement.

Typical Physical Properties

Manta code:	CW-2K
Component System	Two-Component (Part A: Liquid / Part B: Powder)
Appearance:	Part A: Milky white emulsion Part B: Grey or white fine powder
Mixed Density(20°C, g/cm ³)	Approx. 1.50 – 1.70
Tensile Strength	≥ 1.5 MPa
Elongation at Break	≥ 80% – 150% (Highly flexible/elastomeric)
Adhesion (Bond Strength)	≥ 1.0 MPa (Excellent bonding to damp concrete)
Impermeability (Water Resistance)	≥ 0.3 MPa @ 30 mins (No water penetration)
Drying Time (at 25°C, 50% RH)	Surface Dry: 2 – 4 hours Hard Dry: 8 – 12 hours
Application Temperature	5°C to 35°C (Substrate & Ambient)

Features

- **Eco-Friendly Profile:** A completely water-based, non-toxic, and non-polluting green coating. Safe for enclosed spaces.
- **Excellent Physical Properties:** Delivers outstanding tensile strength, robust water resistance, and long-term weatherability.
- **Damp-Tolerant Application:** Forms an exceptionally strong bond with damp substrates. Its application is not restricted by standard substrate moisture limits, significantly shortening project timelines.
- **Cold-Applied Versatility:** Safe, seamless, and easy cold-application process.

Application

Manta CW-2K is the ultimate solution for heavy-duty waterproofing, seepage prevention, and

moisture mitigation across diverse projects:

1. Building Construction: Non-exposed flat/pitched roofs, bathrooms, wet rooms (kitchens), and exterior walls.
2. Underground Infrastructure: Basements, underground garages, tunnels, and civil defense projects.
3. Civil Engineering: Road and bridge decks, water conservancy projects, swimming pools, and water containment tanks.

Application Guidelines

1. Substrate Preparation

The substrate must be solid, flat, and free of sharp corners, floating dust, oil, and contaminants.

Repair any low depressions or damaged areas.

All internal/external corners and pipe penetrations must be chamfered into rounded arcs (internal corner radius > 10mm).

Moisture Check: The substrate can be damp, but strictly NO standing water or puddles are allowed prior to application.

2. Mixing Ratio & Preparation

Strictly follow the specific Liquid-to-Powder weight ratio printed on the product packaging.

Method: Pour the Liquid (Part A) into a clean mixing bucket. While continuously stirring with a mechanical mixer, slowly add the Powder (Part B). Mix thoroughly until a smooth, lump-free, homogeneous slurry is achieved.

(Note: A minimal amount of clean water can be added to adjust the viscosity for varying vertical/horizontal application needs).

3. Detailing & Reinforcement (Pre-treatment)

Fill any designed structural grooves with appropriate sealants.

Apply 2 to 4 generous coats of the mixed JS coating to all critical details (internal/external corners, pipe roots).

For underground projects or areas subject to movement, embedding a layer of reinforcing matrix (fiberglass mesh/non-woven fabric) during this detailing stage is highly recommended.

4. Main Area Application

The waterproof membrane must be built up in multiple thin coats (minimum of 4 coats recommended).

Coating Interval: Allow approximately 8 hours between coats (extend curing time in winter/low temperatures). Apply the next coat crosswise to the previous one.

Thickness & Consumption: The optimal thickness per coat is 0.4 – 0.5 mm, with a consumption rate of approx. 0.8 kg/m² per coat.

Vertical Surfaces: Do not add water (or add very little) to prevent sagging, which can lead to uneven thickness and material accumulation/cracking at the corners.

5. Incorporating Reinforcing Matrix (If required by design)

When using a reinforcing fabric, lay it completely flat without wrinkles or bubbles. The overlap width must be $\geq 100\text{mm}$.

Method: Apply the first coat of JS coating, immediately lay the fabric into the wet coating, and then apply the second coat directly over the fabric (Wet-on-wet technique).

6. Final Curing & Protection

Total dry film thickness must meet specific project designs:

Multi-layer Roof Systems: $\geq 1.5\text{mm}$

Single-layer Roof / Underground Projects: $\geq 2.0\text{mm}$

Bathrooms / Wet Rooms: $\geq 1.5\text{mm}$

Upon completion and successful inspection, apply the required protective screed or isolation layer as per architectural design.

Packaging

Part A (Polymer Liquid): 10kg in a plastic pail.

Part B (Cementitious Powder): 10kg in a multi-wall moisture-resistant paper bag.

Or Customized.

Safety and Storage

Part A (Liquid Emulsion): Store strictly indoors between 5°C and 35°C. CRITICAL: Protect from freezing. Freezing will cause irreversible emulsion breakdown. Avoid direct sunlight.

Part B (Powder): Store in a cool, strictly dry, and well-ventilated area. Keep bags elevated off the ground on pallets and protect from rain and high ambient humidity to prevent premature hydration and clumping.

Shelf Life: Part A (Liquid): 12 months from the date of manufacture when stored in original, unopened containers under proper conditions.

Part B (Powder): 6 to 9 months when stored in original, undamaged packaging in dry conditions.

(Note: Cementitious materials are highly sensitive to moisture).

Contact Information

Nanjing Manta New Material Co., Ltd

Add: Room 102247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China

Factory: YanHua Industrial Park, Geputan Town, Yunmeng County, Hubei Province, China

Mob: 0086 18962800162

Mail: inquiry@mantasil.com Web: www.mantasil.com