

# Manta WR-P02

Solid Silicone Water Repellent (Sodium-Based Powder)

## Description

Manta WR-P02 is a solid silicone water repellent, formulated as an advanced powdered form of sodium methyl silicate. It is engineered to deliver exceptional capillary-penetrating and hydrophobizing properties for cementitious materials.

**Moisture-Activated Cross-Linking:** The core efficiency of Manta WR-P02 relies on its moisture-activated reactive mechanism. Upon hydration (contact with water during the mixing phase), the reactive silanol groups within its molecular structure chemically bond with the native hydroxyl groups of the silicate-based building materials. This permanent covalent reaction neutralizes capillary suction, establishing a robust, three-dimensional hydrophobic network deep within the porous matrix.

**Densification & Structural Reinforcement:** As it cures, it effectively densifies the internal matrix of the cementitious system, seamlessly combining a flawless moisture barrier with enhanced structural durability. It is an ideal, easy-to-blend active additive for high-demand dry-mix formulations.

## Typical Physical Properties

Manta code:	WR-P02
Chemical Name:	Silicone solid water repellent
Appearance:	White Powder
Solid content:	99%
Silsesquioxane Equivalent:	70%
pH:	12-13
Flammability:	Not flammable

## Application

### 1. Premium Dry-Mix Mortars & Tile Grouts

The ultimate integral water repellent for cementitious dry-mix formulations. Extensively used in tile grouts, joint fillers, and decorative stucco to impart long-lasting hydrophobicity, significantly reducing water absorption and mitigating the migration of waterborne salts.

### 2. Exterior Wall Putty & EIFS Systems

Highly recommended as a core additive in exterior wall putty powders and Exterior Insulation and Finish Systems (EIFS). Protects facades from driving rain while fully preserving the vapor permeability (breathability) of the protective layers.

### 3. Cementitious Waterproofing Slurries

An essential active ingredient in formulating rigid and semi-flexible cementitious waterproofing coatings. Provides robust barrier properties for roofs, basements, bathrooms, and retaining walls.

### 4. High-Absorbent Inorganic Aggregates

Ideal for dry-blending with highly porous lightweight aggregates (expanded perlite, gypsum powders, thermal insulation materials), endowing them with significant moisture-proof capabilities.

#### Application Guidelines (How to Use)

##### 1. Integral Waterproof Mortar / Concrete

Dosage: Add Manta WR-P02 at 0.4% to 0.5% by weight of cement.

Mixing: To ensure optimal dispersion, dry-blend the WR-P02 powder thoroughly with the cement, sand, and aggregates before adding water.

Application: Proceed with standard mortar/concrete placement and curing methods.

##### 2. Leakage Repair & Patching

Preparation: Mechanically profile smooth surfaces. Active water leaks must be plugged with a rapid-setting water-stop compound first.

Execution: Apply a slurry bond coat, followed immediately by the WR-P02 treated waterproof mortar.

##### 3. Surface Spray Coating (Liquid Anti-Seepage)

Dilute 1 part WR-P02 powder with 50 to 70 parts of clean water. Spray directly onto highly absorbent inorganic substrates (concrete, fired bricks, roof tiles) to create an immediate moisture-proof barrier.

##### 4. Pre-Packaged Waterproof Cement & Putties

Incorporate WR-P02 at a dosage of 0.4% - 0.5% by total dry weight into putty powders, tile grouts, or compatible dry-mix formulations to significantly enhance weather resistance.

#### Package &Storage:

In 25kg bags.

This agent dissolves in water. During transportation, pay attention to waterproofing and moisture-proofing to prevent rain and packaging damage. Transported as non-dangerous goods.

Store in a dry environment at -20-40°C, with a shelf life of 24 months.

#### Contact Information

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