MANTA

Technical Data Sheet

Version: 1.0

Manta WR-P01

Solid Silicone Water Repellent Powder (Potassium Methyl Siliconate)

Description

Manta WR-P01 is a solid silicone water repellent based on highly concentrated potassium methyl siliconate. Supplied as a fine, highly water-soluble white powder, it delivers exceptional capillary-penetrating and hydrophobic properties.

Advanced Waterproofing Mechanism: Unlike pore-blocking crystalline waterproofing, Manta WR-P01 works through a moisture and CO2-activated reactive technology. Upon contact with water and atmospheric carbon dioxide, it dissolves and chemically reacts to form an insoluble, highly cross-linked polymethylsiloxane resin network. This network covalently bonds to the silicate pores, effectively neutralizing capillary suction and creating a highly repellent, three-dimensional moisture barrier while fully maintaining the substrate's breathability (vapor permeability).

Performance similar to WACKER SILRES® BS Powder S.

Typical Physical Properties

Manta Code:	WR-P01
Chemical Name:	Potassium methyl siliconate powder
Appearance:	White to off-white powder
Solid Content:	≥ 98%
Methylsilsesquioxane Content (as CH3SiO1.5):	70%
pH(in 10% solution):	12-13
Flammability:	Not flammable

Application

1. Dry-Mix Mortars & Tile Grouts

An integral water repellent for cementitious dry-mix formulations. Extensively used in tile grouts, joint fillers, and decorative stucco to impart long-lasting hydrophobicity and prevent unsightly efflorescence (white salt staining).

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 preserving vapor permeability.

3. High-Absorbent Inorganic Aggregates

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

4. On-Site Liquid Water Repellent Production

Can be easily dissolved in water directly on the construction site to produce a highly effective liquid surface water repellent, significantly reducing shipping and logistics costs compared to pre-mixed liquids.

Application Guidelines & Dosage

A. Integral Waterproofing (Dry-Mix Addition)

Dosage: Typically 0.2% to 0.5% by total weight of cement/binder.

Mixing: Thoroughly dry-blend the WR-P01 powder with cement, sand, and other aggregates to ensure homogeneous dispersion before adding the mixing water. Proceed with standard placement and curing methods.

B. Leakage Repair & Patching Mortar
Prepare a waterproof mortar by adding 0.4% WR-P01 (by weight of cement).
Clean and roughen the concrete surface. (Note: Active, flowing leaks must be stopped with a rapid-setting hydraulic cement plug prior to mortar application). Apply the treated mortar in layers.

C. Surface Spray Coating (Anti-Seepage)
Dilution: Dissolve 1 part WR-P01 powder thoroughly into about 50 parts of clean water (by weight).
Application: Spray or brush the solution directly onto absorbent inorganic substrates (concrete, fired bricks, roof tiles) to create an immediate moisture-proof barrier.

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

Contact Information

Nanjing Manta New Material Co., Ltd
Add: Room 102-247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China
Factory: Miaoguan Town Industrial Park, Sishui County, Jining City, Shandong Province, China
Mob: +86 18961071292
Mail: inquiry@mantasil.com Web: www.mantasil.com