MANTA

**Technical Data Sheet**

Version: 1.0

# Manta WS180

Silane/Siloxane Water-Repellent Emulsion

## Description

Manta WS180 is a high-performance, solvent-free emulsion based on reactive silanes and modified polysiloxanes.
Performance equivalent to Wacker SILRES® BS 1802.

## Typical Physical Properties

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|---|---|
| Manta Code: | WS180 |
| Chemical Name: | Silane and modified polysiloxane emulsion |
| Appearance: | Milky white liquid |
| Active Content(%): | approx. 50 |
| Density (20°C, g/cm³): | approx. 0.95 |

## Properties

- Exceptional Hydrophobicity: Delivers outstanding and durable water repellency.
- Highly Breathable: Maintains uncompromised water vapor permeability of the substrate.
- Rapid Effectiveness: Features high early water resistance shortly after application.
- Pronounced Beading Effect: Generates a strong surface water droplet roll-off (lotus) effect.
- Deep Penetrating Power: Low molecular structure ensures excellent depth of penetration.
- Aesthetic Preservation: Exhibits very low dirt pick-up and effectively prevents the efflorescence of soluble salts.
- Eco-Friendly: 100% solvent-free, water-borne formulation.

## Application

Manta WS180 is widely utilized as a highly active ingredient for the formulation of water-based impregnating agents and hydrophobic primers for mineral building materials.

## Application Guidelines

- Surface Impregnation: WS180 is an excellent impregnator for various porous mineral substrates, including fired brick, clinker, sand-lime brick, natural stone, and mineral plasters. Dilute WS180 with clean water at a ratio of 1:4 to 1:9 depending on substrate porosity. Apply the diluted solution generously and evenly using a brush, roller, or the flooding method. To ensure complete coverage and avoid missed spots, a "wet-on-wet" application technique is highly recommended.
- Hydrophobic Primer: When formulated as a hydrophobic primer, it is recommended to be applied in combination with a suitable polymer dispersion (hydrosol).
- Integral Waterproofing: For large-scale in-mass waterproofing and freeze-thaw protection of concrete or mortar, an addition rate of 0.1% to 1.0% by weight of the cement is recommended.

## Packaging

In 20-25kg/ Plastic drum, 180-200kg/Iron drum

## Safety and Storage

Temperature Sensitivity: Manta WS180 is an aqueous emulsion that is highly sensitive to frost and extreme heat. It must be stored indoors at temperatures between 5°C and 40°C. Exposure to temperatures outside this range may cause irreversible emulsion breakage (phase separation).

Quality Verification: In the event of suspected frost or heat damage, the viability of the product must be thoroughly verified prior to processing.
Storage Stability: After prolonged storage, the emulsion may undergo natural physical changes such as creaming, precipitation, or slight phase separation. Ensure the product is stirred thoroughly (homogenized) before use to restore its uniform state.
Shelf Life: 12 months when stored properly in original, unopened containers. It's a non-hazardous substance for transport.

## Contact Information

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