MANTA

Technical Data Sheet

Version: 1.0

Manta WS100

Silane/Siloxane Water-Repellent Emulsion

Description

Manta WS100 is a high-performance emulsion based on silane and modified polysiloxane. Performance equivalent to Wacker SILRES® BS 1001.

Typical Physical Properties

Manta Code:	WS100
Chemical Name:	Emulsion based on silane and modified polysiloxane
Appearance:	Milky white or white liquid
Active Content(%):	approx. 50
Density (20°C, g/cm³):	approx. 0.95

Properties

- High Water Repellency: Provides excellent protection against water ingress.
- Highly Breathable: Maintains the natural water vapor permeability of the substrate.
- Early Water Resistance: Develops high water resistance rapidly after application.
- Strong Beading Effect: Generates an excellent water droplet roll-off (lotus) effect on the surface.
- Deep Penetration: Features excellent penetrating power into mineral substrates.
- Low Dirt Pick-up: Reduces surface soiling and keeps treated areas clean.
- Anti-Efflorescence: Effectively prevents the efflorescence of soluble salts (surface whitening/frosting).
- Eco-Friendly: Solvent-free and water-based formulation.

Application

Manta WS100 is widely used as an active waterproofing ingredient for the manufacture of water-based impregnating agents, or as a high-performance hydrophobic primer for various mineral building materials.

Application Method

- Substrate Compatibility: Manta WS100 is an outstanding impregnating agent suitable for a wide range of mineral substrates, including clay bricks, clinker, sand-lime bricks, natural stone, and mineral plasters/renders. It is less suitable for dense, low-absorbency natural stone, especially limestone and marble.
- Dilution & Application: Dilute Manta WS100 with clean water at a ratio of 1:4 to 1:9, depending on the porosity and absorption capacity of the substrate. Apply the diluted solution liberally and evenly onto the absorbent surface using a brush, roller, or flooding method. To ensure complete coverage and avoid missed spots, a "wet-on-wet" application technique is highly recommended.
- Hydrophobic Primer Formulation: When used to formulate a hydrophobic primer, it is recommended to be applied in combination with a suitable polymer dispersion (hydrosol).
- Mass Water Repellency: For integral (in-mass) water repellency and to reduce efflorescence, an addition rate of 0.1% to 1.0% by weight of the cement content is recommended.

Packaging

In 190kg drum and 950kg IBC

Safety and Storage

Temperature Sensitivity: Manta WS100 is an aqueous emulsion that is highly sensitive to frost and extreme heat. It must be stored indoors at temperatures strictly 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 and homogeneity of the product must be thoroughly verified prior to application or formulation.
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 & Transport: 12 months when stored properly in original, unopened containers. It is completely water-based and classified as a non-hazardous substance for transport.

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