MANTA

Technical Data Sheet

Version: 1.0

Manta WS290

Concentrated Silane/Polysiloxane Water Repellent

Description

Manta WS290 is a solvent-free, 100% active concentrate composed of silanes and highly modified polysiloxanes. It is designed to be diluted with organic solvents, functioning as an exceptional water-repellent impregnator and primer for mineral substrates.
Performance equivalent to Wacker SILRES® BS 290.

Typical Physical Properties

Manta Code:	WS290
Chemical Name:	Silanes and modified polysiloxanes
Appearance:	Light yellow liquid
Active Content(%):	100
Density (20°C, g/cm³):	0.97

Properties

- Exceptional Hydrophobicity: Delivers outstanding initial and long-term water repellency.
- Highly Breathable: Maintains uncompromised water vapor permeability, allowing the substrate to "breathe".
- Pronounced Beading Effect: Imparts an excellent surface water-droplet roll-off (lotus) effect.
- Deep Penetration: Low molecular weight enables high penetrating power into dense mineral matrices.
- Aesthetic Preservation: Significantly reduces dirt pick-up (stain resistance) and effectively prevents surface efflorescence.

Application

Manta WS290 is an ideal high-concentration base for the production of solvent-borne penetrating water repellents and primers. It is highly suitable for:

1. Clay bricks, sand-lime bricks, and natural stone.
2. Exposed concrete and mineral-based plasters/renders.
3. Functioning as a high-performance hydrophobic primer for exterior acrylic or silicone resin paints.

Application Guidelines

- Dilution Requirement: Due to its 100% active concentration, WS290 must be diluted prior to application. Depending on the substrate's porosity, dilute at a ratio of 1:9 to 1:14 by weight.
- Suitable Solvents: Highly miscible with aliphatic or aromatic hydrocarbon solvents, as well as dearomatized hydrocarbon solvents (e.g., D40).
- Application Technique: Apply the diluted solution liberally and evenly to the absorbent surface using a brush, roller, or the flooding method. A wet-on-wet application is recommended for maximum penetration.
- Substrate Tolerance: Specially formulated to perform effectively even on slightly damp or highly alkaline building materials. It is not suitable for making gypsum renders water-repellent.

Packaging

In 190kg drum and 900kg IBC

Safety and Storage

Storage Conditions: Store in a cool, dry, and well-ventilated area away from direct sunlight, heat

sources, and open flames. Unlike aqueous emulsions, this 100% active concentrate is highly frost-resistant but very sensitive to humidity.
Moisture Sensitivity (CRITICAL): This product reacts actively with atmospheric moisture to release small amounts of alcohol (ethanol/methanol). Prolonged exposure to air will cause premature cross-linking and irreversible damage. Ensure all containers are tightly sealed immediately after dispensing.
Hazard & Handling: The final diluted solutions (when mixed with hydrocarbon solvents) are highly flammable. Keep away from ignition sources and ensure adequate ventilation during application.
Shelf Life: 12 months when stored safely in original, unopened containers under recommended conditions.

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