MANTA

Technical Data Sheet

Version: 1.0

Manta WS600

Silicone Resin Emulsion for Architectural Coatings

Description

Manta WS600 is a solvent-free aqueous emulsion of a highly reactive, modified polysiloxane resin. It is specifically designed to serve as the primary binder or co-binder in the formulation of high-performance exterior architectural coatings and plasters.
Performance equivalent to Wacker SILRES® BS 60.

Typical Physical Properties

Manta Code:	WS600
Chemical Name:	Aqueous emulsion of modified polysiloxane resin
Appearance:	Milky white liquid
Active Content(%):	approx. 50
Density (20°C, g/cm³):	approx. 1
pH Value:	approx. 9

Properties

- Exceptional Water Repellency: Delivers superior, long-lasting moisture protection to the coating system.
- Highly Breathable: Ensures very high water vapor permeability, allowing the masonry to "breathe".
- Aesthetic Preservation: Exhibits very low dirt pick-up, keeping exterior facades clean for years.
- Early Rain Resistance: Rapidly develops early water resistance shortly after application.
- Robust Film-Forming: Forms a durable, microporous silicone resin network.
- High Alkali Resistance: Highly stable in high-pH environments, making it fully compatible with silicate-based systems.
- Eco-Friendly: 100% solvent-free, water-borne formulation.

Application

Manta WS600 acts as a core hydrophobic binder in silicone resin paints and plasters. Systems formulated with WS600 achieve the ideal balance of protecting against driving rain while maintaining maximum vapor transmission. Due to its outstanding alkali resistance, it is also highly recommended as a modifying co-binder for sodium silicate paints (mineral paints) to significantly improve their water repellency.

Formulation Guidelines

During the manufacturing process, Manta WS600 is typically incorporated into the water-based coating formulation at the following dosages (calculated by weight relative to the total formulation):
Silicone Resin Paints: 4.0% – 10.0%
Silicone-Modified (Reinforced) Acrylic Paints: 2.0% – 4.0%
Silicone Resin Plasters / Renders: 2.0% – 6.0%
SiSi Plasters (Silicate/Silicone Hybrid Renders): 2.0% – 4.0%
Formulator's Tip: To achieve an outstanding surface water-beading (lotus) effect, we highly recommend incorporating 1% – 3% of Manta WS136 into the final coating formulation.

Packaging

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

Safety and Storage

Temperature Sensitivity: Manta WS600 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.
Storage Risks: Exposure to temperatures outside this recommended 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 any formulation or processing.

Contact Information

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