MANTA

Technical Data Sheet

Version: 1.0

Manta WS168

Silicone-Based pH-Adjuster for Architectural Coatings

Description

Manta WS168 is a highly concentrated, water-based, and completely solvent-free methylsiliconate solution. It functions as an advanced, silicone-based pH-adjuster specifically formulated for waterborne emulsion paints. Unlike conventional organic amines, it not only neutralizes and stabilizes the system's pH but also actively contributes to the final performance of the dried coating film.
Performance equivalent to Wacker SILRES BS 168.

Typical Physical Properties

Manta Code:	WS168
Chemical Name:	Aqueous solution of methylsiliconates
Appearance:	Clear to slightly hazy, colorless liquid
Active Content(%):	approx. 50
Density (25°C, g/cm³):	approx. 1.4
pH Value:	13.0 - 14.0

Properties

1. Exceptional pH Stability: Effectively buffers and maintains the target pH of emulsion paints and contributes to excellent storage stability.
2. Upgraded Water Resistance: The silicone backbone integrates into the coating matrix, boosting the overall water repellency of the final paint film—a significant advantage over standard volatile amines.
3. Enhanced Coating Durability: Contributes to improved mechanical resistance and scrubability of the dried architectural coatings.
4. Eco-Friendly & Safe: 100% solvent-free and VOC-compliant, making it the ideal pH neutralizer for formulating ultra-low VOC and very low-odor interior and exterior paints.

Application

Manta WS168 is designed as a specialized auxiliary agent for the paint and coatings industry. It is highly recommended to replace conventional volatile amines (such as 2-amino-2-methyl-1-propanol (AMP) or ammonia) or harsh inorganic bases. It is well suited for waterborne architectural paints, plasters, and primers where strict VOC regulations, low odor requirements, and enhanced film properties are important.

Formulation Guidelines

To ensure safe handling and optimal performance within the coating matrix, please adhere to the following guidelines:
1. Pre-Dilution: For ease of application and to prevent localized pH shocks (alkaline burns) to the polymer emulsion, it is strictly recommended to pre-dilute Manta WS168 with water at a ratio of 1:3 (1 part WS168 to 3 parts water) prior to addition.
2. Addition Method: Always incorporate the diluted solution slowly under continuous and adequate stirring to avoid local high pH spikes.
3. Dosage: The exact dosage depends heavily on the specific paint formulation and the initial pH of the binder system. Add the diluted Manta WS168 incrementally until the target pH is achieved (e.g., pH 9.5 is typical for standard architectural emulsion paints).

Packaging

In 25kg/ Plastic drum, 200kg/ Plastic drum, or 1000kg/ IBC tote.

Safety and Storage

Handling Precautions: Due to its high pH (13-14), Manta WS168 is strongly alkaline and corrosive in its liquid state. Appropriate personal protective equipment (PPE), including chemical safety goggles and alkali-resistant gloves, must be worn during handling.
Storage Conditions: Store indoors in tightly sealed, original plastic containers in a cool, dry, and well-ventilated area.
Shelf Life: Protect from frost and extreme heat. When stored correctly, the shelf life is typically 12 months from the date of manufacture. Quality verification is recommended before use if stored beyond this period.

Contact Information

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