

# Manta EH102

## Hydroxy Functional PDMS Emulsion

### Description

Manta EH102 is a reactive water-based emulsion of hydroxyl-functional polydimethylsiloxane (PDMS / OH-Polymer). It is specifically engineered to serve as a highly effective water-repellent admixture for cementitious materials and an essential performance-enhancing additive for silicone resin-based renders and plasters.

By introducing active silanol groups that chemically bond with the substrate, Manta EH102 ensures long-lasting, integral waterproofing without compromising the material's natural breathability.

### Features

- ◆ **Excellent Water Repellency & Beading:** Provides outstanding liquid water resistance and a strong "lotus effect" (water beading) to cured mortars and dried renders.
  - ◆ **Reactive Chemical Bonding:** The active silanol groups react chemically with hydroxyl-functional sites on the substrate, pigments, and cement hydrates, ensuring durable and permanent protection.
  - ◆ **High Vapor Permeability:** Maintains the breathability of the treated materials, allowing trapped moisture (water vapor) to escape freely.
  - ◆ **Superior Weatherability:** Significantly increases the resistance of exterior renders and coatings to UV degradation and weathering.
- Versatile & Easy to Formulate:** Can be used directly as supplied or easily diluted in water, making it highly compatible with various water-based formulations.

### Typical Physical Properties

Manta code:	EH102
Chemical Name:	Hydroxyl-Terminated PDMS Emulsion
Appearance:	Milky white liquid
Active content:	Approx. 50%
pH:	6-8
Density(g/cm <sup>3</sup> ):	1.0
Solvent (Thinner):	Water

### Applications

#### 1. Silicone Resin-Based Renders & Plasters

Acts as a synergistic performance enhancer when formulated with silicone resin emulsions. It provides premium exterior renders with extreme water repellency, dirt pick-up resistance, and enhanced flexibility.

### 2. Cementitious Admixtures (Integral Waterproofing)

Serves as a highly efficient waterproofing mass-admixture for cement-based products, such as concrete paving blocks (pavers), precast elements, and dry-mix mortars.

#### Application Guidelines & Dosage

- Preparation: Manta EH102 can be used directly as supplied or pre-diluted. When diluting, slowly add deionized water under gentle agitation. (Note: If storing the diluted product, the addition of a suitable biocide/preservative is strictly required to prevent microbial growth).
- Dosage for Renders: For optimal performance in exterior silicone resin plasters, an addition level of 0.5% to 2.0% by weight is recommended.
- Dosage for Cementitious Mixes: When utilized as an integral admixture, the recommended dosage is 0.25% to 1.0% by weight, based on the dry weight of the cementitious mixture (equivalent to 0.125% to 0.5% active silicone ingredients).

#### Packaging

In 200kg drum and 1000kg IBC, or customized.

#### Safety and Storage

Storage Conditions: Store in a cool, dry, and well-ventilated indoor area. Strictly avoid exposure to direct sunlight.

Temperature Limits: Maintain storage temperatures between 5°C and 40°C. Strictly PROTECT FROM FREEZING. Freezing will cause irreversible emulsion breakdown.

Shelf Life: 12 months from the date of manufacture when stored properly in original, unopened containers. It is non-hazardous substance.

#### Contact Information

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