MANTA

Technical Data Sheet

Version: 1.0

# Manta MF3

Silane–terminated Polyether Polymer

## Description

Manta MF3 Alkoxy silane–terminated polyether polymer designed for moisture-curing elastic sealants and sealing coatings.

Sealants formulated with MF3 exhibit excellent adhesion across a wide variety of substrates. Unlike polyurethane or silicone systems, these formulations are solvent- and isocyanate-free, producing no bubbles or odor during curing.

The product is well suited for applications in the construction, transportation, and general industrial sectors.

## Typical Physical Properties

| | |
|---|---|
| Manta code: | MF3 |
| Chemical Name: | Silane terminated polyether |
| Appearance | Yellow viscous liquid |
| Flash Point (℃): | ≥237 |
| Boiling Point (℃): | ＞250 |
| Viscosity (25℃) / mpa·s: | 1000 – 2000 |
| Density (25℃) / g/cm3: | 1.02 – 1.05 |

## Properties

- Low Activity, low shrink.
- Lower viscosity, could adding more powder
- Good adhesion strength and tensile elasticity
- Excellent aging and yellowing resistance
- Excellent water resistance , resistance to chemical corrosion
- Solvent free , odourless , eco-friendly
- Could be blended with other Manta polymers

## Applications

MF3 polymer is used as base polymer in elastic sealants, elastic structure sealants, encapsulate adhesives and coatings . The curing mode of the polymer is moisture curing, It can be made into a single component or two components system.

- High hardness sewing sealant
- Transportation industry elastic sealant
- Low viscous encapsulate adhesive
- Personal DIY sealant
- Eco-friendly decoration sealant

## Processing

Manta MF3 polymer is readily soluble in common organic solvents such as ethanol, while remaining virtually insoluble in water. As a result, formulation components are typically oil-soluble materials.

The curing mechanism is based on moisture-initiated silane reactions: in the presence of a catalyst, terminal silane groups undergo hydrolysis to form silanols, which subsequently condense to create siloxane crosslinks, producing a three-dimensional network structure.

Although MF3 polymer contains highly reactive functional groups, it remains stable for a certain period under catalyst-free conditions. Moisture control is critical during storage and processing. To ensure formulation stability, the addition of a chemical moisture scavenger is required; vinyl trimethoxysilane is recommended.

MF3 polymer can be processed using conventional mixing equipment. For further technical assistance, please contact our technical support team.

## Packing

50kg plastic drum lined with aluminum foil bag;
200kg drum lined with aluminum foil bag;
1000kg IBC/Tote;
Can be customized.

## Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is 12 months. It is non-hazardous substance.

## Contact Information

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