

# Manta MS2030T

MS Polymer / Silyl-Terminated-Polyether

## Description

Manta MS2030T is a low-viscosity, alkoxy-silane terminated polyether polymer featuring a high-purity polyoxypropylene backbone. Specifically engineered to replace traditional polyurethane and silicone systems, it provides a solvent-free and isocyanate-free base for high-performance elastic sealants and structural adhesives. The polymer cures at ambient temperature through a moisture-triggered cross-linking mechanism. Unlike PU systems, it releases no CO<sub>2</sub> during curing, ensuring a bubble-free and odorless finish. With a low glass transition temperature (T<sub>g</sub>), MS2030T maintains stable mechanical properties and superior elasticity across a wide temperature range.

## Typical Physical Properties

Manta code:	MS2030T
Chemical Name:	Silane terminated polyether
Appearance	Light yellow transparent liquid
Flash Point (°C):	≥237
Boiling Point(°C):	≥250
Viscosity (25°C) / mpa·s:	6000 – 10000
Density (25°C) / g/cm <sup>3</sup> :	ca.1.0
Water-Soluble	Virtually Insoluble
Activity:	Moderate Activity
Modulus:	Moderate Modulus

## Properties

- Moderate Activity, Moderate Modulus
- Good adhesion strength
- Fast curing, non-tin catalysts used if needed, more eco-friendly
- Excellent aging and yellowing resistance
- Excellent water resistance, resistance to chemical corrosion
- Excellent elastic recovery rate
- Excellent storage stability
- Solvent free, odourless, eco-friendly
- Could be blended with other Manta polymers

## Applications

Manta MS2030T is a high-performance base resin designed for formulating premium elastic sealants, structural adhesives, encapsulants, and protective coatings. Featuring a versatile

moisture-curing mechanism, it can be engineered into both one-component (1K) and two-component (2K) systems to meet diverse industrial requirements.

1. **Construction & Infrastructure:** Ideal for low-modulus construction sealants used in expansion joints and facade sealing, offering superior weatherability and movement accommodation.
2. **Transportation & Automotive:** Formulated into high-performance elastic sealants for rail transit, buses, and specialty vehicles, providing excellent vibration damping and structural integrity.
3. **Consumer & DIY Markets:** Perfect for Personal DIY sealants due to its ease of use, non-toxic profile, and bubble-free curing.
4. **Eco-Friendly Interior Solutions:** Specifically designed for green decoration sealants, offering a solvent-free, odorless, and paintable finish for indoor environments.
5. **Industrial Assembly:** Serves as an excellent binder for elastic structural adhesives and encapsulate potting compounds in electronics and general manufacturing.

### Processing

Manta MS2030T is readily soluble in common organic solvents (e.g., ethanol) but insoluble in water; therefore, formulation components should primarily be oil-soluble. The polymer cures via a moisture-triggered mechanism: terminal silane groups hydrolyze into silanol intermediates, which then undergo catalyst-accelerated condensation to form a high-strength siloxane bond (-Si-O-Si-) network.

While MS2030T exhibits temporary stability in air without a catalyst, its high reactivity makes moisture control critical. To prevent premature gelation and ensure shelf-life stability, strict dehydration of raw materials and the use of a moisture scavenger—specifically Vinyl Trimethoxysilane (VTMO)—are mandatory during processing and storage.

Conventional mixing process can be suitable for MS2030T POLYMER. For more technical support, please consult our technical engineers.

### Cleaning

This product can be removed before curing by the general solvent, such as ethanol, dimethyl carbonate. After curing can only be removed by mechanical means.

### 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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