

Technical Data Sheet

Version: 1.0

STP M₁₀

MS Polymer / Silyl-Terminated-Polyether

Description

Manta STP M10 is a silane terminated polyether, which is endcapped by trimethoxysilyl group, the main chain is PPO (polypropylene oxide). It hydrolyzes in the presence of moisture with catalyst (such as: amine catalysis, or Tin and other heavy metal) by releasing methanol and finally form a stable siloxane network. It is a clear liquid polymer with the high reactivity, which is made into the sealant and adhesive.

Then products have excellent adhesion, weather resistance, better environmental protection etc.

The Equivalent List

Manta	Wacker	Kenaka
M10	GENIOSIL ® STP-E15	

Typical Physical Properties

Manta code: M10

Chemical Name: Trimethoxysilane Terminated Polyether

CAS No.: 216597-12-5

Appearance Colorless Transparent Liquid

Flash Point ($^{\circ}$): 237

Viscosity (25°C) / mpa·s: 9000 - 15000Density (25°C) / g/cm^{3:} 1.02 - 1.05

Catalyst Dosage (Tin, %) 1 - 2

Chemical Structure:

OMe
H
MeO-Si-(H₂C)₃-N-C-O~Polyether O-C-N-(CH₂)₃-Si-OMe
OMe
OMe
OMe

Properties

- High Active, Fast Curing.
- Good mix with normal additives.
- Good transparency.
- Good yellowish resistance.



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- Excellent mechanical properties.
- Widely bond to substrates.

Applications

Used as a reactive binder for sealants and adhesives, potting compounds and coatings. Curing takes places at ambient temperature in the presence of both moisture and catalyst.

Depending on the formulation, either prepared as one part or two-part systems, shows good adhesion to a wide variety of substrates even without pretreatment.

The low glass transition temperature allows stable mechanical properties over a wide temperature range.

Processing

Manta M10 can react with water or by absorbing moisture from the air, so it is important to isolate moisture during storage and production.

The dosage of Manta M10 can be flexibly changed in the formulation design, and it can be mixed with most fillers such as nano calcium carbonate, heavy calcium carbonate, fumed silica, quartz powder, diatomaceous earth, aluminum hydroxide, etc..

In order to avoid pre-curing of the product, it is necessary to remove water from the filler. VTMO is generally used as a water scavenger.

Commonly used plasticizers are phthalates (PPG, DOP, DINP, DIDP, etc.), low molecular weight polyethers, etc.

In order to get better performance, you can mix other additives together, for example, tackifiers, antioxidants, mildew inhibitors, light stabilizers, etc.

Packaging

In 200L drum, IBC or other customized packing.

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is 24 months. It is non-hazardous substance.

Contact Information

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