MANTA



PRODUCT BROCHURE

Silane-Terminated Polymers

STPE (SMP type) · SPUR resins · Specialty binders
for sealants, adhesives, potting compounds and coatings

Advanced Silicone Science, Infinite Application.

Nanjing Manta New Material Co., Ltd.

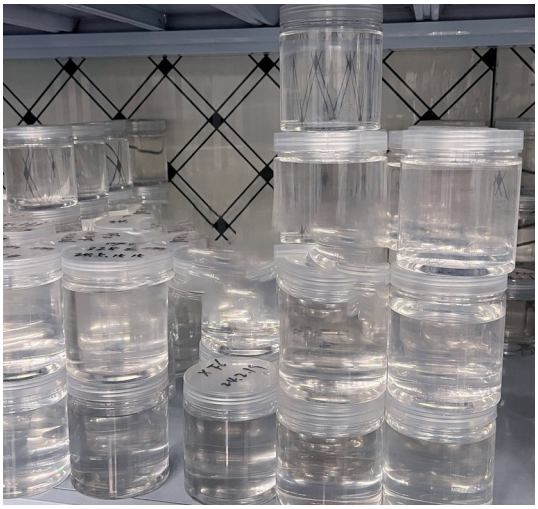
ABOUT THE RANGE

Moisture-curing binders for elastic sealants and adhesives

Manta supplies silane-terminated polymers in these product families: high-reactivity STPE, trimethoxysilyl STPE, SMP-type STPE, and SPUR resins and specialty binders.

The polymers are liquid binders that cure at room temperature with atmospheric moisture. They are used to make elastic sealants, adhesives, potting compounds and coatings for construction, transportation, industry and DIY, which can be formulated without free isocyanates or solvents.

This brochure gives the viscosity, activity and modulus of each grade to help you shortlist polymers. Full specifications, reference formulations and safety information are in the technical data sheet (TDS) and safety data sheet (SDS) of each grade.



How silane-terminated polymers cure

01 Hydrolyze

The alkoxysilyl end groups react with moisture from the air or the substrate and form silanol groups. Methoxy-functional grades release a small amount of methanol.

02 Condense

The silanol groups condense with each other to Si–O–Si bonds. A catalyst, such as an organotin or amine compound, controls the cure speed; the high-reactivity grades cure without organotin catalysts.

03 Network

The polymer chains link into an elastic siloxane-crosslinked network. The flexible polyether backbone gives elongation and low-temperature flexibility; the grade sets reactivity and modulus.

Product families

High-Reactivity STPE

Fast-curing silane-terminated polyethers for tin-free sealants and adhesives.

MS310A MS313 MS350

Trimethoxysilyl STPE

Polyethers with trimethoxysilyl end groups, from low-viscosity high-modulus to high-viscosity grades.

MS305D MS311 MS312 MS330A MS330C MS3303I MS3303M MS3303T MS3310 MS3303H MS330B

SMP-Type STPE

Silyl-terminated polyethers of the silane-modified polymer (SMP) type, from low-modulus to high-modulus grades.

MS2628 MS2030T MS3030T MS4000H MS201S MS27 MS7500 MS314

SPUR Resins & Specialty Binders

Plasticizer-free SPUR resins, a low-viscosity STPE and a binder for mineral surface protection.

MS692 MF3 SPUR M3050 SPUR M3015

BENEFITS

What silane-terminated polymers bring to a formulation

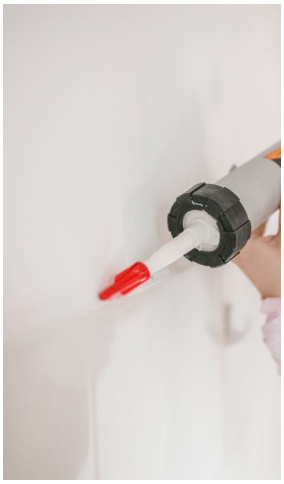
The polymer is the binder of the sealant or adhesive: it sets cure speed, modulus, elongation and adhesion. The main properties of the range:



01

Isocyanate- and solvent-free

The polymers contain no free isocyanates, and grades such as MS311, MS3303H, MS3030T and MF3 are solvent-free, for low-emission interior, DIY and decoration sealants.



02

Adhesion and paintability

Formulated with adhesion promoters, the polymers bond to many substrates such as metals, plastics and ceramics, often without a primer. MS310A, MS3303M and MS314 give paintable sealants.



03

Fast, tin-free cure

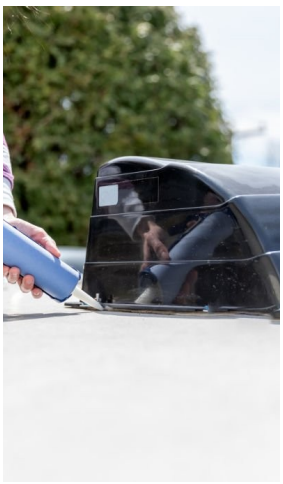
MS310A, MS313 and MS350 cure quickly without organotin catalysts; MS201S, MS27 and MS3303I can also be cured with tin-free catalysts.



04

Movement and elastic recovery

Low-modulus grades such as MS201S, MS27, MS3303I and SPUR M3015 give soft, stress-relaxing sealants with high elastic recovery for expansion, facade and prefabricated concrete joints.



05

Strength and hardness

High-modulus grades MS305D, MS7500 and MS2628 build strength and hardness for industrial, semi-structural and flooring adhesives; MS305D cures to Shore A 70.



06

Clarity and weathering

Colorless, transparent grades such as MS310A, MS311 and MS3303T suit clear sealants and adhesives; MS310A and MS3303T resist UV aging and yellowing.

PRODUCT OVERVIEW

Grades at a glance

Grades by family with viscosity, activity and modulus as given in the TDS (– = not stated). The last column gives the page of the product in this brochure.

Grade	Product	Viscosity 25 °C, mPa·s	Activity / modulus	Page
High-Reactivity STPE				
MS310A	High-reactivity silane-terminated polyether (STPE)	8,000–12,000	High / –	6
MS313	High-reactivity silane-terminated polyether (STPE)	30,000–42,000	High / –	6
MS350	Silicone-modified silane-terminated polyether	500–1,000	High / –	6
Trimethoxysilyl STPE				
MS305D	Trimethoxysilyl-terminated polyether (STPE)	1,400–1,600	High / High	7
MS311	Trimethoxysilyl-terminated polyether (STPE)	4,000–5,000	High / Medium-high	7
MS312	Trimethoxysilyl-terminated polyether (STPE)	8,000–13,000	Medium / Medium-high	7
MS330A	Trimethoxysilyl-terminated polyether (STPE)	25,000–35,000	High / Medium-high	8
MS330C	Trimethoxysilyl-terminated polyether (STPE)	25,000–35,000	High / Medium-high	8
MS3303I	Trimethoxysilyl-terminated polyether (STPE)	35,000–45,000	High / Low-medium	8
MS3303M	Trimethoxysilyl-terminated polyether (STPE)	40,000–50,000	High / Medium	8
MS3303T	Trimethoxysilyl-terminated polyether (STPE)	40,000–50,000	High / Medium	9
MS3310	Trimethoxysilyl-terminated polyether (STPE)	45,000–55,000	Medium / Medium-high	9
MS3303H	Trimethoxysilyl-terminated polyether (STPE)	50,000–60,000	High / Medium	9
MS330B	Trimethoxysilyl-terminated polyether (STPE)	60,000–70,000	Medium / Medium-high	9
SMP-Type STPE				
MS2628	Silyl-terminated polyether (STPE)	6,000–9,000	– / High	10
MS2030T	Silyl-terminated polyether (STPE), SMP type	6,000–10,000	Moderate / Moderate	10
MS3030T	Silyl-terminated polyether (STPE), SMP type	10,000–15,000	Moderate / Moderate	10
MS4000H	Silyl-terminated polyether (STPE)	15,000–30,000	Low-medium / Medium	11
MS201S	Silyl-terminated polyether (STPE)	18,000–28,000	High / Low	11
MS27	Silyl-terminated polyether (STPE)	28,000–38,000	High / Low	11
MS7500	Silyl-terminated polyether (STPE)	40,000–60,000	– / High	11
MS314	Silane-modified polyether (STPE/SMP)	80,000–130,000	Medium / Low	12
SPUR Resins & Specialty Binders				
MS692	Silane-modified polyether binder for mineral surface protection	approx. 150	–	12
MF3	Low-viscosity silane-terminated polyether	1,000–2,000	–	12
SPUR M3050	Silylated polyurethane resin (SPUR), plasticizer-free	35,000–55,000	– / Medium	13
SPUR M3015	Silylated polyurethane resin (SPUR), plasticizer-free	90,000–120,000	– / Low	13



Clear, colorless polymers



Bathroom and interior sealants

SELECTION GUIDE

Which grade for which application

Typical starting points. Suitability depends on the complete formulation; please test before use and follow the TDS of the grade.

Application	Grades	Notes
Low-modulus construction joints, facades and curtain walls	**MS201S, MS27, MS2030T, MS3030T, MS3303I, SPUR M3015**	Low or moderate modulus, high elastic recovery
Paintable building sealants	**MS310A, MS313, MS3303M, MS3303T, MS314**	Paintable surface
Transportation: vehicle, rail and container sealing and bonding	**MS312, MS330A, MS330C, MS3303I, MS305D, SPUR M3050**	Elastic and structural adhesives, seam sealants
Industrial and assembly adhesives	**MS305D, MS313, MS4000H, MS7500, MS3303T**	Higher modulus and strength
Flooring and parquet adhesives	**MS310A, MS312, MS2628**	High filler loadings possible with MS310A and MS2628
Wood bonding adhesives	**MS350**	Silicone-modified, for formulations without solvents or plasticizers
Clear sealants and transparent bonding	**MS310A, MS311, MS313, MS3303T, MS330A, MS330C**	Colorless, transparent polymers
Potting and encapsulation	**MS311, MS313, MS3303H, MS3303T, MF3**	Electrical properties to be verified in the final formulation
DIY, interior and low-emission sealants	**MS201S, MS27, MS3030T, MS3303H, MF3**	Solvent- and isocyanate-free formulations
Coatings and sealing coatings	**MS310A, MS312, MS330A, MS305D, MF3**	Reactive binder or additive
Mineral surface protection	**MS692**	Penetrating impregnation and thin topcoats, aminosilane-catalyzed
Reactive plasticizer	**MF3**	Low viscosity



Marine sealants



Floor and tile joints

High-Reactivity STPE

MS310A and MS313 carry highly reactive silyl end groups and cure quickly with atmospheric moisture without organotin catalysts, so tin-free formulations are possible. MS310A is the lower-viscosity grade for high filler loadings and flooring adhesives, MS313 the higher-viscosity grade for elastic industrial adhesives and sealants. MS350 is a silicone-modified, low-viscosity grade for wood bonding adhesives that cures without organometallic catalysts and can be blended with other silane-terminated polymers.



Manta MS310A

High-reactivity silane-terminated polyether (STPE)

Manta MS310A is a high-reactivity silane-terminated polyether (STPE) with moisture-reactive silyl end groups on a polypropylene oxide backbone. It cures quickly with atmospheric moisture without organotin catalysts, is clear and colorless, and has a viscosity of 8,000–12,000 mPa·s for high filler loadings. Used as a binder for construction and industrial sealants, elastic assembly and parquet adhesives, coatings and transparent bonding.

Viscosity 25 °C, mPa·s	**8,000–12,000**	Density 25 °C, g/cm³	**1.005–1.006**
Activity	**High**	Appearance	**Colorless, transparent viscous liquid**



Manta MS313

High-reactivity silane-terminated polyether (STPE)

Manta MS313 is a high-reactivity silane-terminated polyether (STPE) for moisture-curing adhesives and sealants, with a viscosity of 30,000–42,000 mPa·s. It cures fast without organotin catalysts to a tough, elastic siloxane network with high tensile strength, and its modulus can be set over a wide range by formulation. Used in elastic industrial and assembly adhesives, paintable construction sealants, clear adhesives and potting compounds.

Viscosity 25 °C, mPa·s	**30,000–42,000**	Density 25 °C, g/cm³	**1.005–1.006**
Activity	**High**	Appearance	**Colorless, transparent viscous liquid**

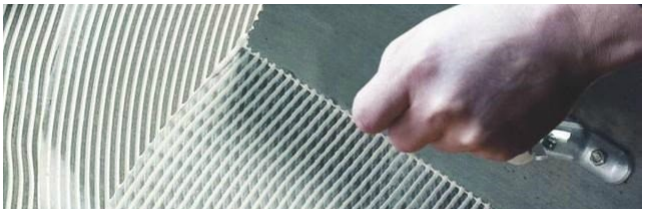


Manta MS350

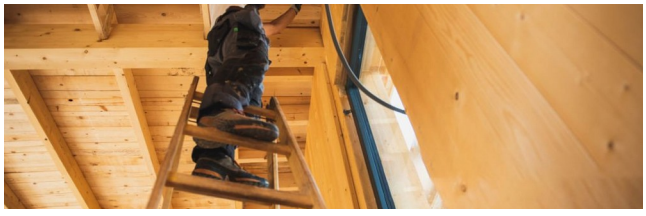
Silicone-modified silane-terminated polyether

Manta MS350 is a silicone-modified silane-terminated polyether (high-reactivity type) with moisture-reactive silyl end groups. The clear polymer (500–1,000 mPa·s, 1.13 g/cm³) cures with moisture to a tack-free surface without organometallic catalysts and can be blended with elastic silane-terminated polymers to adjust flexibility and modulus. Its main use is wood bonding adhesives, formulated without solvents or plasticizers. Supplied only in 200 kg steel drums: the polymer is highly reactive, and an IBC does not seal as well, so moisture could hydrolyze it.

Viscosity 25 °C, mPa·s	**500–1,000**	Density 25 °C, g/cm³	**1.13**
Activity	**High**	Appearance	**Transparent liquid**



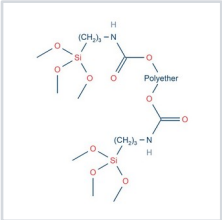
Flooring and parquet adhesives — MS310A



Wood bonding adhesives — MS350

Trimethoxysilyl STPE

These grades have trimethoxysilylpropylcarbamate end groups on a polypropylene oxide backbone. They cure at room temperature with atmospheric moisture, typically with tin or amine catalysts, and release a small amount of methanol. They differ in viscosity, reactivity and modulus: MS305D gives high hardness, the MS3303 grades high reactivity at medium or low-medium modulus, and MS330B and MS3310 medium reactivity with medium-high modulus. MS311, MS312, MS330A and MS330C have CAS No. 216597-12-5.

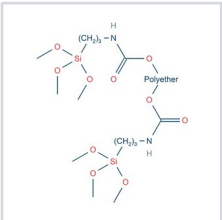


Manta MS305D

Trimethoxysilyl-terminated polyether (STPE)

Manta MS305D is a silane-terminated polyether (STPE/SMP) with a polyoxypropylene backbone, high reactivity and high modulus. The low-viscosity polymer (1,400–1,600 mPa·s) cures with moisture to Shore A 70, with tensile strength ≥3.0 MPa, elongation ≥60 % and a tack-free time of 30 min. Used in high-strength industrial adhesives and sealants, protective coatings, rail and specialty vehicle assembly and facade bonding.

Viscosity 25 °C, mPa·s	**1,400–1,600**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**High**	Modulus	**High**



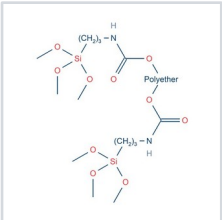
Manta MS311

CAS 216597-12-5

Trimethoxysilyl-terminated polyether (STPE)

Manta MS311 is a silane-modified polyether (STPE/SMP) with trimethoxysilylpropylcarbamate end groups on a polypropylene oxide backbone. The colorless, transparent polymer (4,000–5,000 mPa·s) has high reactivity and medium-high modulus, cures at room temperature with a tack-free time of 30 min and is solvent- and isocyanate-free. Used in 1K and 2K sealants, elastic structural adhesives, potting compounds and protective coatings.

Viscosity 25 °C, mPa·s	**4,000–5,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**High**	Modulus	**Medium-high**



Manta MS312

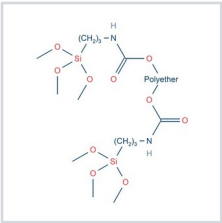
CAS 216597-12-5

Trimethoxysilyl-terminated polyether (STPE)

Manta MS312 is a silane-terminated polyether (STPE) with trimethoxysilylpropylcarbamate end groups on a polypropylene oxide backbone and a viscosity of 8,000–13,000 mPa·s. It cures at room temperature with tin or amine catalysts, releasing a little methanol, to a clear siloxane network with medium-high modulus. Used in structural and assembly adhesives for automotive, rail and containers, parquet adhesives and facade and window sealants.

Viscosity 25 °C, mPa·s	**8,000–13,000**	Density 25 °C, g/cm³	**1.02–1.05**
Activity	**Medium**	Modulus	**Medium-high**

Trimethoxysilyl STPE (continued)



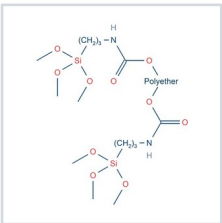
Manta MS330A

CAS 216597-12-5

Trimethoxysilyl-terminated polyether (STPE)

Manta MS330A is a silane-terminated polyether (STPE/SMP) with trimethoxysilylpropylcarbamate end groups on a linear polypropylene oxide backbone. The colorless polymer (25,000–35,000 mPa·s) is solvent- and isocyanate-free and cures bubble-free with moisture; a cured reference sample gives 0.77 MPa tensile strength, 109 % elongation and Shore A 36. Used in vehicle, rail and building joint sealants, clear glass adhesives and flexible coatings.

Viscosity 25 °C, mPa·s	**25,000–35,000**	Density 25 °C, g/cm³	**1.02–1.05**
Activity	**High**	Modulus	**Medium-high**



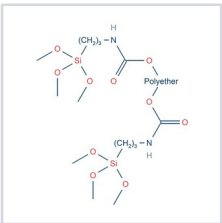
Manta MS330C

CAS 216597-12-5

Trimethoxysilyl-terminated polyether (STPE)

Manta MS330C is a silyl-terminated polyether (STPE/SMP) with trimethoxysilylpropylcarbamate end groups on a linear polypropylene oxide chain. The colorless polymer (25,000–35,000 mPa·s) is solvent- and isocyanate-free, skins fast and has medium-high modulus; a cured reference sample gives 0.82 MPa tensile strength, 136 % elongation and Shore A 32. Used in vehicle, rail and building joint sealants, clear glass adhesives and flexible coatings.

Viscosity 25 °C, mPa·s	**25,000–35,000**	Density 25 °C, g/cm³	**1.02–1.05**
Activity	**High**	Modulus	**Medium-high**

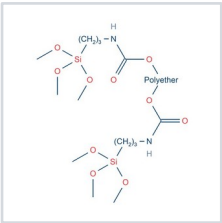


Manta MS3303I

Trimethoxysilyl-terminated polyether (STPE)

Manta MS3303I is an alkoxysilane-terminated polyether (STPE/SMP) with a polypropylene oxide backbone, high reactivity and low-to-medium modulus for high-movement joints. The transparent polymer (35,000–45,000 mPa·s) cures with organotin or tin-free amine catalysts; a cured reference sample gives 0.58 MPa tensile strength, 117.6 % elongation and Shore A 29. Used in expansion joint, curtain-wall, vehicle, marine and interior sealants.

Viscosity 25 °C, mPa·s	**35,000–45,000**	Activity	**High**
Modulus	**Low-medium**	Appearance	**Transparent viscous liquid**



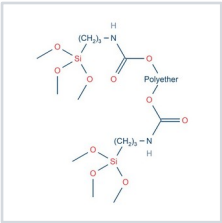
Manta MS3303M

Trimethoxysilyl-terminated polyether (STPE)

Manta MS3303M is an alkoxysilane-terminated polyether (STPE/SMP) with a polyoxypropylene backbone, high reactivity and medium modulus. The transparent polymer (40,000–50,000 mPa·s) cures bubble-free with moisture and amine or tin catalysts in 1K or 2K systems, gives a paintable surface and contains no solvents or free isocyanates. Used in sealants, adhesives, potting compounds and coatings for construction, industry and transportation.

Viscosity 25 °C, mPa·s	**40,000–50,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**High**	Modulus	**Medium**

Trimethoxysilyl STPE (continued)

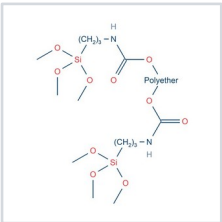


Manta MS3303T

Trimethoxysilyl-terminated polyether (STPE)

Manta MS3303T is an alkoxysilane-terminated polyether (STPE/SMP) with a polyoxypropylene backbone, high reactivity and medium modulus. The transparent polymer (40,000–50,000 mPa·s) cures at room temperature with moisture and amine or tin catalysts and is solvent-free (100 % solids) with no free isocyanates. Uses include clear sealants for glass assembly, industrial assembly adhesives, vehicle sealing and curtain-wall and window sealants.

Viscosity 25 °C, mPa·s	**40,000–50,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**High**	Modulus	**Medium**

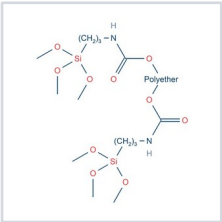


Manta MS3310

Trimethoxysilyl-terminated polyether (STPE)

Manta MS3310 is an alkoxysilane-terminated polyether (STPE/SMP) with a polypropylene oxide backbone, medium reactivity and medium-high modulus. The transparent polymer (45,000–55,000 mPa·s) cures with amine or tin catalysts in 1K or 2K systems; a cured reference sample gives 0.54 MPa tensile strength, 124.8 % elongation and Shore A 29. Used in elastic sealants, structural adhesives, potting compounds and coatings for building and transport.

Viscosity 25 °C, mPa·s	**45,000–55,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**Medium**	Modulus	**Medium-high**

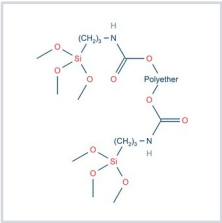


Manta MS3303H

Trimethoxysilyl-terminated polyether (STPE)

Manta MS3303H is an alkoxysilane-terminated polyether (STPE/SMP) with a polypropylene oxide backbone and high reactivity at medium modulus. The transparent polymer has a viscosity of 50,000–60,000 mPa·s, cures with moisture in 1K or 2K systems (tack-free time 30 min) and is solvent-free with no free isocyanates. Used in transportation and construction sealants, clear potting compounds and low-emission DIY and interior sealants.

Viscosity 25 °C, mPa·s	**50,000–60,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**High**	Modulus	**Medium**



Manta MS330B

Trimethoxysilyl-terminated polyether (STPE)

Manta MS330B is an alkoxysilane-terminated polyether (STPE/SMP) with a polypropylene oxide backbone, medium reactivity and medium-high modulus. Its viscosity of 60,000–70,000 mPa·s reduces the fumed silica needed for thixotropy and allows a higher polymer-to-filler ratio; a cured reference sample gives 0.79 MPa tensile strength, 117 % elongation and Shore A 34. Used in elastic sealants, structural adhesives, potting compounds and coatings.

Viscosity 25 °C, mPa·s	**60,000–70,000**	Activity	**Medium**
Modulus	**Medium-high**	Appearance	**Transparent viscous liquid**

SMP-Type STPE

These silyl-terminated polyethers have moisture-reactive silyl end groups on a polyoxypropylene backbone and cure with atmospheric moisture to elastic sealants and adhesives. MS2030T, MS3030T, MS201S and MS27 are used for low-modulus joint and facade sealants, MS4000H for industrial and assembly adhesives, MS7500 and MS2628 for high-modulus semi-structural, flooring and industrial adhesives, and MS314 for low-modulus, paintable sealants.



Manta MS2628

Silyl-terminated polyether (STPE)

Manta MS2628 is a low-viscosity silyl-terminated polyether (STPE) with moisture-reactive silyl groups, designed for fast reactivity, high hardness and storage stability. The light yellow polymer (6,000–9,000 mPa·s) suits hot and cold blending, allows high filler loadings and develops a high modulus shortly after application; formulations can be solvent- and isocyanate-free. Used in flooring, industrial and general-purpose adhesives.

Viscosity 25 °C, mPa·s	**6,000–9,000**	Density 25 °C, g/cm³	**1.002–1.005**
Modulus	**High**	Appearance	**Light yellow viscous liquid**



Manta MS2030T

Silyl-terminated polyether (STPE), SMP type

Manta MS2030T is a silyl-terminated polyether (STPE) with moisture-reactive silyl end groups on a polyoxypropylene backbone. The light yellow polymer (6,000–10,000 mPa·s, flash point ≥237 °C) has moderate activity and modulus, releases no CO_2 on curing, cures bubble-free and stays flexible over a wide temperature range due to its low Tg. Used in low-modulus joint and facade sealants, vehicle and DIY sealants and elastic adhesives.

Viscosity 25 °C, mPa·s	**6,000–10,000**	Density 25 °C, g/cm³	**approx. 1.0**
Activity	**Moderate**	Modulus	**Moderate**



Manta MS3030T

Silyl-terminated polyether (STPE), SMP type

Manta MS3030T is a silyl-terminated polyether (STPE) with moisture-reactive silyl end groups on a polyoxypropylene backbone. The light yellow polymer (10,000–15,000 mPa·s, flash point ≥237 °C) has moderate activity and modulus, releases no CO_2 on curing, cures bubble-free and stays flexible over a wide temperature range due to its low Tg. Used in low-modulus joint and facade sealants, vehicle, DIY and interior sealants and elastic adhesives.

Viscosity 25 °C, mPa·s	**10,000–15,000**	Density 25 °C, g/cm³	**approx. 1.0**
Activity	**Moderate**	Modulus	**Moderate**

SMP-Type STPE (continued)



Manta MS4000H

Silyl-terminated polyether (STPE)

Manta MS4000H is a silyl-terminated polyether (STPE) whose silyl groups hydrolyze with moisture, release methanol and condense to a siloxane network. The light yellow polymer (15,000–30,000 mPa·s) has low-to-medium activity and medium modulus, with a tack-free time of 30 min, tensile strength ≥0.4 MPa, elongation ≥100 % and Shore A ≥20. Used in industrial and transportation sealants and adhesives, construction and assembly adhesives.

Viscosity 25 °C, mPa·s	**15,000–30,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**Low-medium**	Modulus	**Medium**



Manta MS201S

Silyl-terminated polyether (STPE)

Manta MS201S is a silyl-terminated polyether (STPE) with moisture-reactive silyl end groups, combining high reactivity with low modulus for flexible, stress-relaxing joints. The transparent to slightly yellow polymer (18,000–28,000 mPa·s) cures with moisture in 1K or 2K systems, also with tin-free catalysts, and gives high elastic recovery. Used in low-modulus expansion joint and facade sealants, vehicle sealing and DIY and interior sealants.

Viscosity 25 °C, mPa·s	**18,000–28,000**	Density 25 °C, g/cm³	**approx. 1.0**
Activity	**High**	Modulus	**Low**



Manta MS27

Silyl-terminated polyether (STPE)

Manta MS27 is a silyl-terminated polyether (STPE) with moisture-reactive silyl end groups, combining high reactivity with low modulus for flexible, stress-relaxing joints. The transparent to slightly yellow polymer (28,000–38,000 mPa·s) cures with moisture in 1K or 2K systems, also with tin-free catalysts, and gives high elastic recovery. Used in low-modulus joint and facade sealants, vehicle sealing and DIY and interior sealants.

Viscosity 25 °C, mPa·s	**28,000–38,000**	Density 25 °C, g/cm³	**approx. 1.0**
Activity	**High**	Modulus	**Low**



Manta MS7500

Silyl-terminated polyether (STPE)

Manta MS7500 is a silyl-terminated polyether (STPE) with moisture-reactive silyl groups for semi-structural adhesives and high-strength sealants. The light yellow polymer (40,000–60,000 mPa·s) combines high modulus with high tensile strength and elongation, can be hot or cold compounded and gives a short tack-free time. Used in industrial and semi-structural adhesives, automotive, infrastructure, waterproofing, construction and DIY products.

Viscosity 25 °C, mPa·s	**40,000–60,000**	Density 25 °C, g/cm³	**1.002–1.005**
Modulus	**High**	Appearance	**Light yellow viscous liquid**

SMP-Type STPE (continued)



Manta MS314

Silane-modified polyether (STPE/SMP)

Manta MS314 is an alkoxysilane-terminated polyether (STPE/SMP) with a polypropylene oxide backbone, medium activity and low modulus. The colorless, transparent polymer (80,000–130,000 mPa·s) cures with moisture at room temperature with a tack-free time of 30 min, gives a paintable surface and is solvent- and isocyanate-free. Used in elastic sealants, structural adhesives, potting compounds and coatings for construction, industry and transport.

Viscosity 25 °C, mPa·s	**80,000–130,000**	Density 25 °C, g/cm³	**1.002–1.005**
Activity	**Medium**	Modulus	**Low**

SPUR Resins & Specialty Binders

SPUR M3015 and SPUR M3050 are plasticizer-free silylated polyurethane resins for one-component moisture-curing sealants: M3015 for low-modulus joints with high movement, M3050 for medium-modulus sealants where tensile strength is needed. MF3 is a low-viscosity silane-terminated polyether for sealants, encapsulating adhesives and as a reactive plasticizer. MS692 is a solvent- and plasticizer-free binder for stain-resistant impregnations on paving stone, masonry and concrete.



Manta MS692

Silane-modified polyether binder for mineral surface protection

Manta MS692 is a silane-modified polyether (SMP) binder for tin-free, aminosilane-catalyzed mineral surface protection. The binder (approx. 150 mPa·s, 100 % active, no solvents or plasticizers) penetrates porous substrates and cures with moisture to a hydrophobic siloxane network that resists water and oily stains. Used in stain-resistant impregnations for paving stone, clinker, masonry and natural stone and thin topcoats on concrete floors.

Viscosity 25 °C, mPa·s	**approx. 150**	Density 25 °C, g/cm³	**1.13**
Active Content	**100 % (solvent- and plasticizer-free)**	Appearance	**Clear to pale yellow liquid**



Manta MF3

Low-viscosity silane-terminated polyether

Manta MF3 is an alkoxysilane-terminated polyether for moisture-curing elastic sealants and sealing coatings. The yellow liquid (1,000–2,000 mPa·s, flash point ≥237 °C) has low activity and low shrinkage, allows higher filler loadings and cures bubble-free in 1K or 2K systems without solvents or isocyanates. Used in joint, transportation, DIY and low-emission decoration sealants, low-viscosity encapsulating adhesives and as a reactive plasticizer.

Viscosity 25 °C, mPa·s	**1,000–2,000**	Density 25 °C, g/cm³	**1.02–1.05**
Appearance	**Yellow viscous liquid**		

SPUR Resins & Specialty Binders (continued)



Manta SPUR M3050

Silylated polyurethane resin (SPUR), plasticizer-free

Manta SPUR M3050 is a plasticizer-free silylated polyurethane (SPUR) resin for one-component, moisture-curing sealants and adhesives. The slightly yellow resin (35,000–55,000 mPa·s) gives medium-modulus sealants where tensile strength is needed, with good adhesion, weathering resistance and elastic recovery. Used in door and window, kitchen and bathroom, floor joint and glass sealing, and in seam sealing of buses, rail vehicles and tricycles.

Viscosity 25 °C, mPa·s	**35,000–55,000**	Density 25 °C, g/cm³	**approx. 1.0**
Modulus	**Medium**	Appearance	**Slightly yellow viscous liquid**



Manta SPUR M3015

Silylated polyurethane resin (SPUR), plasticizer-free

Manta SPUR M3015 is a plasticizer-free silylated polyurethane (SPUR) resin for one-component, moisture-curing sealants and adhesives. The slightly yellow resin (90,000–120,000 mPa·s) gives low-modulus sealants with high elastic recovery, adheres to many surfaces and resists chemicals and weathering. Used in precast concrete and building joints, road joint and crack repair, transparent glass sealing and industrial joints with high movement.

Viscosity 25 °C, mPa·s	**90,000–120,000**	Density 25 °C, g/cm³	**1.02–1.05**
Modulus	**Low**	Appearance	**Slightly yellow viscous liquid**



Prefabricated concrete joints — SPUR M3015



Road joint and crack repair — SPUR M3015



Paving stone protection — MS692



Building joints — SPUR M3050

HANDLING AND STORAGE

Packaging, shelf life and storage

As stated in the TDS of each grade, in the original unopened containers. Drums have an aluminum-foil liner bag. Other pack sizes on request, except MS350, which is supplied only in 200 kg steel drums.

Grade	Packaging	Shelf life	Storage
High-Reactivity STPE			
MS310A	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS313	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS350	200 kg steel drum only (no IBC or other packaging)	16 months	Cool, dry place
Trimethoxysilyl STPE			
MS305D	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS311	200 kg steel drum, 1,000 kg IBC	12 months	Cool, dry place
MS312	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	24 months	Cool, dry place
MS330A	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	24 months	Cool, dry place
MS330C	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	24 months	Cool, dry place
MS3303I	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS3303M	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS3303T	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS3310	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS3303H	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS330B	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
SMP-Type STPE			
MS2628	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS2030T	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS3030T	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS4000H	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS201S	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS27	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS7500	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MS314	200 kg steel drum, 1,000 kg IBC	12 months	Cool, dry place
SPUR Resins & Specialty Binders			
MS692	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
MF3	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
SPUR M3050	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place
SPUR M3015	50 kg plastic drum, 200 kg drum, 1,000 kg IBC	12 months	Cool, dry place

Handling notes

- The polymers cure with moisture: keep containers tightly closed, process under dry conditions and close part-used containers at once
- Store protected from moisture and direct sunlight
- Dry fillers thoroughly before compounding; vinyltrimethoxysilane (VTMO) is recommended as water scavenger
- Methoxy-functional grades release a small amount of methanol on curing; provide ventilation
- Shelf life counts from the date of production
- Read the SDS of each grade before handling

SUPPLY AND SERVICE

Supply and support

Packaging

- 50 kg plastic drums and 200 kg drums with aluminum-foil liner bag
- 1,000 kg IBC (tote)
- Other pack sizes on request
- Exception: MS350 is supplied only in 200 kg steel drums. It is highly reactive and hydrolyzes easily, and an IBC does not seal as well as a steel drum
- Samples for evaluation

Quality and documents

- ISO 9001:2015 certified quality management system
- TDS, SDS and COA available for each grade on request

Custom grades

- Polymers with other viscosity, reactivity or modulus on request
- Custom grades subject to technical review

Technical support

- Help with grade selection and starting formulations
- Reference formulations in the TDS of selected grades







To select a grade, please tell us

1. Product: sealant, adhesive, potting, coating
2. Required modulus, hardness and elongation
3. Substrates to bond
4. Catalyst system: tin or tin-free
5. Clear or pigmented product
6. Quantity and packaging

The information in this brochure is given in good faith and based on our current knowledge. Values are typical unless stated as specifications and do not form part of a sales specification. Users should test the products to determine their suitability for the intended use. The latest TDS and SDS of each grade apply.



Nanjing Manta New Material Co., Ltd.

Add: Room 102-247, Building 17, No. 1 Qiliqiao North Road, Nanjing Area of the China (Jiangsu) Pilot Free Trade Zone, Nanjing, China

Factory: Miaoguan Town Industrial Park, Sishui County, Jining City, Shandong Province, China

Mob: +86 18961071292

Mail: inquiry@mantasil.com

Web: www.mantasil.com