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SILICO ORGANOSILICON





Silico Organosilicon





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Shandong Silico Silicone Materials Co., Ltd., established in 2007, is a leading high-tech enterprise specializing in the research, development, production, and sales of silicone materials. Our core products include silicone rubber, silicone oil, silicone resin, fumed silica, and silicone intermediates. We have a fully integrated production capacity, covering everything from silicon metal powder processing to silicone monomers, intermediates, and downstream products, ensuring a complete industrial chain.

Leading Manufacturer in China's Organosilicon Industry

With over 15 years of continuous growth, Shandong Silico has become one of China's largest organosilicon enterprises. The company operates three organosilicon monomer production units, with a methyl chlorosilane monomer production capacity of 600,000 tons per year. As a key supplier of silicone deep-processing products, we offer more than 300 grades of silicone rubber, silicone oil, fumed silica, and other advanced materials.

■ Why select Silico Organosilicon?

- Strong silane and silicone manufacturing capabilities built over 30+ years history.
- Flexible manufacturing facility able to handle kilograms to thousands of tons per years.
- Rapid and professional process development and scale-up capabilities.
- Offer tailored options while adhering to high quality and safety standards.







Silico Volatile Silicone Fluids (volatile polydimethylsiloxanes) are used as base fluids in a number of personal care products with excellent spreading and unique volatility characteristics. These fluids are clear, tasteless, odorless and provide a non-greasy feel. They are used in a wide variety of antiperspirants, skin creams, skin lotions, suntan lotions, bath oils, hair care products etc. Silico Volatile Silicones possess low surface tensions and exhibit excellent spreadability.

Silico Volatile Silicones exhibit excellent low temperature serviceability (pour points as low as -86°C. In addition, they provide excellent lubricity and have viscosities comparable to water.

Silico® MF2010 (0.65cSt)

Hexamethyldisiloxane [CAS 107-46-0]

Silico® MF2010 (1.5cSt)

Decamethyltetrasiloxane [CAS 141-62-8]

Silico® MF2010 (1.0cSt)

Octamethyltrisiloxane [CAS 107-51-7]

Silico® MF2010 (2~1,000,000cSt)

Polydimethysiloxane [CAS 63148-62-9]



Product	Viscosity	Flashpoint	Freezing Point	Specific Gravity	Surface Tension	Refractive Index
	cSt	°C	°C	25°C	mN/m, 25°C	25°C
MF2010-0.65	0.65	-4	-75	0.760	15.9	1.375
MF2010-1	1	40	-100	0.816	17.4	1.382
MF2010-1.5	1.5	63	-90	0.852	18.0	1.388
MF2010-2	2	79	-80	0.873	18.7	1.390
MF2010-3	3	100	-70	0.898	19.2	1.393

Low Viscosity PDMS Silicone Fluids

Silico Low viscosity silicone fluids are 100% polydimethylsiloxanes (CAS# 63148-62-9) that are used in a wide variety of applications. A primary use is as a vehicle or ingredient in a number of personal care products due to their high spreadability, low surface tension and subtle skin lubricity. These fluids are clear, tasteless, odorless and provide a non-greasy feel. They are used in a wide variety of antiperspirants, skin creams, skin lotions, suntan lotions, bath oils, hair care products etc.

Silico Low Viscosity Silicones also possess high shearability, high water repellency, low vapor pressure, and low reactivity. They are excellent lubricants for plastics, foams and rubbers.

Silico Low Viscosity Silicones exhibit excellent low temperature serviceability. In addition, they provide excellent lubricity and have viscosities slightly thicker than water.

Product	Viscosity	Flashpoint	Freezing Point	Specific Gravity	Surface Tension	Refractive Index
	cSt	°C	°C	25°C	mN/m, 25°C	25°C
MF2010-5	5	136	-65	0.910	19.7	1.397
MF2010-10	10	162	-65	0.930	20.1	1.399
MF2010-20	20	>230	-60	0.950	20.6	1.400

Standard Viscosity PDMS Silicone Fluids

Silico Standard Viscosity Pure Silicone Fluids are 100% Polydimethylsiloxane (DiMethyl) Silicone oils (CAS 63148-62-9) that are available in viscosities ranging from 50cSt, 100cSt, 200cSt, 350cSt (food grade), 500cSt & 1,000cSt.

They are clear, colorless, odorless and essentially inert. Silico Pure Silicone fluids have excellent thermal stability and can be used in open system baths that range from -40°C to 200°C without breaking down (gelling). In closed systems, their thermal stability is even higher. Silicone fluids possess high dielectric properties and are non-conductive.

Polydimethylsiloxanes are used in a wide range of applications that include Damping Fluids, O-Ring Lubricants, Heat Transfer Fluids, High and Low temperature Bath Fluids, Dielectric applications, water-repellency applications and high shear applications.

Standard Viscosity PDMS Silicone Fluids

Product	Viscosity	Flashpoint	Freezing Point	Specific Gravity	Surface Tension	Refractive Index
	cSt	°C	°C	25°C	mN/m, 25°C	25°C
MF2010-50	50	>280	-55	0.959	20.7	1.402
MF2010-100	100	>280	-55	0.965	20.9	1.403
MF2010-200	200	>300	-50	0.967	21.0	1.403
MF2010-250	250	>300	-50	0.970	21.1	1.403
MF2010-350	350	>300	-50	0.970	21.1	1.403
MF2010-500	500	>300	-50	0.970	21.1	1.403
MF2010-1000	1000	>300	-50	0.970	21.2	1.403

High Viscosity PDMS Silicone Fluids

Silico High Viscosity Pure Silicone Fluids are clear, 100% DiMethyl Silicone oils (Polydimethylsiloxanes) that are available in viscosities ranging from 5,000cSt, 10,000cSt, 12,500cSt, 30,000cSt, 60,000cSt, & 100,000cSt. They are used in a wide range of applications that include Damping Fluids, O-Ring Lubricants, Heat Transfer Fluids, and Bath Fluids.

Product	Viscosity	Flashpoint	Freezing Point	Specific Gravity	Surface Tension	Refractive Index
	cSt	°C	°C	25°C	mN/m, 25°C	25°C
MF2010-5000	5000	>300	-50	0.975	21.4	1.403
MF2010-10000	10000	>300	-50	0.975	21.5	1.403
MF2010-12500	12500	>300	-50	0.975	21.5	1.403
MF2010-30000	30000	>300	-50	0.975	21.5	1.403
MF2010-60000	60000	>300	-50	0.975	21.5	1.403
MF2010-100000	100000	>300	-50	0.976	21.5	1.404

Super-High Viscosity PDMS Silicone Fluids

Super-High Viscosity Pure Silicone Fluids are 100% Polydimethylsiloxane (Dimethyl) Silicone oils (CAS # 63148-62-9) that are available in viscosities ranging from 300,000cSt, 600,000cSt, 1 million cSt & 2.5 million cSt. The fluids are clear, colorless, odorless and inert. Their higher viscosity and higher molecular weight make them excellent products for a wide range of Damping applications. Silico High Viscosity can also be used as O-Ring Lubricants, Gasket and Seal lubricants.

Product	Viscosity	Flashpoint	Freezing Point	Specific Gravity	Surface Tension	Refractive Index
	cSt	°C	°C	25°C	mN/m, 25°C	25°C
MF2010-300000	300000	>300	-45	0.976	21.5	1.404
MF2010-500000	500000	>300	-40	0.976	21.5	1.404
MF2010-1000000	1000000	>300	-40	0.976	21.5	1.404



Hydrogen Silicone Fluids

Methyl Hydrogen Silicone Fluid
Silico® HF2020 [CAS 63148-57-2]

Hydrogen Silicone Fluid

Silico® HF2050 [CAS 68037-59-2]

Hydrogen Terminated Silicone Fluid

Silico® HF2030 [CAS 70900-21-9]

$$\begin{array}{c|c} CH_3 & CH_3 & CH_3 \\ \hline \\ H & Si & O & Si & O \\ \hline \\ CH_3 & CH_3 & CH_3 \\ \hline \end{array}$$

Hydrogen Silicone Fluid

Silico® HF2060 [CAS 69013-23-6]

$$\begin{array}{c|c} CH_3 & & CH_3 \\ H & & SI & O \\ \hline & CH_3 & & SI & O \\ \hline & CH_3 & & CH_3 \\ \hline \end{array}$$

Methyl Hydrogen Silicone Fluid HF2020 contains a hydrogen group on each silicon atom, allowing the fluid to be chemically reactive with hydroxyl groups and unsaturated organic compounds, it is used as waterproofing (hydrophobing) agents for gupsum, textiles, paper and leather, powders, silicas and other fillers.

HF2030 is a reactive silicone fluid terminated with silicon-hydride group, it can be used with vinyl unctional silicone polymers to produce cured silicone elastomer. It will react with any vinyl functional silicone polymer in the presence of catalyst.

HF2050 Crosslinker is a trimethylsilyl capped methyl hydrogen, dimethyl siloxane copolymer, often used as a crosslinker in silicone elastomers where a softer material is desired. HF2030 and HF2500 can provide protection against moisture, dirt, and other environmental contaminants in electrical or electronic encapsulation applications.



Vinyl Silicone Fluids

Silico® VF6030 [CAS 68083-19-2]

Silico® VF6030 vinyl terminated polymers are used in addition cure systems. They can be used as base polymers or as blend polymers in order to create the desired hardness. These polymers can be cured with silicon-hydride crosslinkers and a platinum catalyst. They are available in a variety of viscosities.

	Vinyl Content	Viscosity cSt
VF6030-20	1.20 mmol/g	20
VF6030-50	0.80 mmol/g	50
VF6030-100	0.37 mmol/g	100
VF6030-200	0.25 mmol/g	200
VF6030-250	0.22 mmol/g	250
VF6030-400	0.19 mmol/g	400
VF6030-500	0.15 mmol/g	500
VF6030-1000	0.11 mmol/g	1000
VF6030-2000	0.08 mmol/g	2000
VF6030-4000	0.07 mmol/g	4000
VF6030-5000	0.06 mmol/g	5000
VF6030-10000	0.05 mmol/g	10000
VF6030-20000	0.04 mmol/g	20000
VF6030-65000	0.03 mmol/g	65000
VF6030-80000	0.024 mmol/g	80000
VF6030-100000	0.020 mmol/g	100000
VF6030-165000	0.015 mmol/g	165000

Silico® VF6031 (1000cSt)

$$H_2C$$
 \longrightarrow CH_3 CH_3

Silico® VF6031 is a mono-vinyl terminated silicone polymer to reduce the durometer of the RTV formulation with minimal bleeding of fluid from the cured material. It may slow the curing of the RTV, but with the use of a faster platinum catalyst, it will help to accelerat the curing.

Silico® VF6070 [CAS 67762-94-1] or [CAS 68083-18-1]

Vinyl Silicone Gum SG605X series [CAS 67762-94-1]

Silico® VF6070, Vinylmethylsiloxane copolymers and vinyl T-structure fluids are mostly employed in peroxide cure silicones which involve peroxide induced free radical coupling between vinyl and methyl groups.

Vinyl Silicone Gum SG606X series [CAS 68083-18-1]

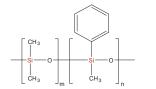
Silico® SG605X and SG606X, vinylmethylsiloxane-dimethylsiloxane copolymers of extremely high molecular weights are the typical base polymer for heat cure silicone elastomers. The base polymer are commonly referred to as gums. Gums typically have molecular weights from 500,000 to 900,000 with viscosities exceeding 2,000,000 cSt.

Terpolymer gums containing low levels of phenyl are used in low temperature applications. At increased phenyl concentrations, they are used in high temperature and radiation resistant applications and are typically compounded with stabilizing fillers such as iron oxide. Phenyl groups reduce cross-linking efficiency of peroxide systems and result in rubbers with lower elasticity.



Phenyl Silicone Fluids

Phenyl Methyl Silicone Fluid



Silico® PF8704 [CAS 3982-82-9]

1,1,5,5-Tetraphenyl-1,3,3,5-Tetramethyltrisiloxane

Diffusion Pump Fluids

Product	Viscosity
Silico® PF8250	25~40 cSt
Silico® PF8255-75	75 cSt
Silico® PF8255-100	100 cSt
Silico® PF8255-150	150 cSt
Silico® PF8255-350	350 cSt
Silico® PF8255-750	750 cSt
Silico® PF8255-1000	1000 cSt

Silico® PF8705 [CAS 3390-61-2]

1,1,3,5,5-Pentaphenyl-1,3,5-Tetramethyltrisiloxane

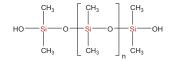
Diffusion Pump Fluids

Silanol Silicone Fluids & OH Polymers



Hydroxy (Silanol) Silicone Fluid

Silico® OF0035, OF0042, OF0156 [CAS 70131-67-8]



OH Polymer

Silico® PF1070 [CAS 70131-67-8]

$$\begin{array}{c|c} CH_3 & CH_3 & CH_3 \\ \hline \\ HO & SI & O & SI & OH \\ \hline \\ CH_3 & CH_3 & CH_3 \\ \hline \end{array}$$

Silico® OF0035 / OF0042 / OF0156 are low molecular silanol terminated reactive polydimethyl siloxane fluids with terminal hydroxyl groups.

Silico® OF0035 / OF0042 are used as structure control additives in silicone elastomers.

Silico® OF0156 is an important raw material for textile auxiliary industry.

Silico® PF1070 is intermediate and high viscosity silanol terminated fluids, 750~100,000 cSt. They are recommended for silicone RT V systems that incorporate reinforcing and extending fillers.

Product	Appearance	Viscosity (25°C)	Volatile (%)
Silico® PF1070-750	Transparent liquid	750 cSt	Max. 1.5
Silico® PF1070-1500	Transparent liquid	1,500 cSt	Max. 1.5
Silico® PF1070-2000	Transparent liquid	2,000 cSt	Max. 1.5
Silico® PF1070-3500	Transparent liquid	3,500 cSt	Max. 1.5
Silico® PF1070-5000	Transparent liquid	5,000 cSt	Max. 1.5
Silico® PF1070-10000	Transparent liquid	10,000 cSt	Max. 1.5
Silico® PF1070-20000	Transparent liquid	20,000 cSt	Max. 1.5
Silico® PF1070-50000	Transparent liquid	50,000 cSt	Max. 1.5
Silico® PF1070-80000	Transparent liquid	80,000 cSt	Max. 1.5
Silico® PF1070-100K	Transparent liquid	100,000 cSt	Max. 1.5
Silico® PF1070-150K	Transparent liquid	150,000 cSt	Max. 1.5
Silico® PF1070-300K	Transparent liquid	300,000 cSt	Max. 1.5
Silico® PF1070-1000K	Transparent liquid	1,000,000 cSt	Max. 1.5





Agricultural Silicone Surfactant (Adjuvant)

Product	CAS No.	Description	Application	Tank-Mix	In-Can pH range	Spreading	Uptake	Rainfastening	Countertype
Silico® ASS8211	67674-67-3	It is a super-spreading surfactant based on polyether modified trisiloxane. It lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.	High Performance super spreader, EC, SL, WDG	Yes	6~8	••••	•••		Silwet 408
Silico® ASS8277	27306-78-1	It is a 100% nonionic organosilicone product which has been proven to have effective and poweful wetting capabilities when used in aqueous sprays.	High Performance Super spreader	Yes	6~8	••••	***	*****	Silwet L-77
Silico® ASS8806	134180-76-0	It is a superspreading surfactant based on a trisiloxane alkoxylate. It lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.	Low Foaming Super spreader	Yes	6~8				Silwet 806
Silico® ASS8309	125997-17-3	It is is a nonionic surfactant that has been specifically designed to enhance the efficacy of pesticides. It is particularly effective when used with water-soluble and post-emergent herbicides.	Super spreader for Organic Farming	Yes	6~8				Silwet ECO
Silico® ASS8560	17955-88-3	It is an alkyl modified trisiloxane, can improve the coverage of oils. It is designed for delivery ofr oil-based pessticide formulations.	Oil based pesticide formulation	Yes					Silwet 560



Siloxane Powder

o Siloxane Powder

Siloxane powders (also known as resin modifiers) are 100% active, free-flowing powders available in both non-reactive and organically reactive grades of special ultra high molecular weight siloxane polymers with fumed silica.

Product	Silicone Content	Carrier	Application
Silico® SP1050	50%	Silica	Thermoplastics
Silico® SP1070	70%	Silica	Thermoplastics
Silico® SP2060	60%	Silica	Thermoplastics
Silico® SP3060	60%	Silica	PVC compounds
Silico® SP5060	60%	Silica	Polyolefin masterbatch, Highly filled masterbatch

Siloxane Masterbatch



Siloxane Masterbatch

- Silico Siloxane Masterbatch is pelletized micro-dispersions of special ultra-high molecular weight siloxane polymers. They typically contain 25-50% ultra-high molecular weight siloxane polymers and different plastic carrier resins.
- ☐ Siloxane Masterbatch are produced in solid form for ease of use.
- □ The siloxane polymer component of the Siloxane Masterbatch can eliminate blooming as well as migration of fluids and other organic plastic additives, which can occur when using lower molecular weight silicone materials.
- Easy to handle additives of ultra-high molecular weight siloxane in various thermoplastic resin carriers.

Key Features and Typical Benefits:

- Improved mar resistance.
- Improved scratch resistance.
- Improved lubricity.
- □ Non-migrating and non-blooming/non-fogging behavior.
- ☐ Improved impact resistance.
- ☐ Increased fabrication line throughput.
- □ Reduced extruder head pressure.
- ☐ Reduced energy usage in processing. Improve mechanical properties like impact etc.
- □ Reduced coefficient of friction.
- □ Non-halogenated flame retardant additive
- ☐ Improved mold-filling and mold release

Product	Appearance	Silicone Content	Carrier	Application
Silico® MB1050	White Pellets	50%	LDPE	PE PP PA TPE
Silico® MB2050	White Pellets	50%	EVA	PE PP PA EVA
Silico® MB3050	White Pellets	50%	TPEE	PET PBT
Silico® MB4050	White Pellets	50%	HDPE	HDPE
Silico® MB5050	White Pellets	50%	ABS	ABS AS PC PC/ABS
Silico® MB6050	White Pellets	50%	PP	PP
Silico® MB7030	White Pellets	30%	PA6	PA
Silico® MB7040	White Pellets	40%	PA6	PA
Silico® MB8030	White Pellets	30%	PET	PET
Silico® MB8040	White Pellets	40%	PET	PET
Silico® MB9050	White Pellets	50%	TPU	TPU
Silico® MB10050	White Pellets	50%	HIPS	PE, PP
Silico® MB11050	White Pellets	40%	POM	POM
Silico® MB12050	White Pellets	50%	LLDPE	PE, PP
Silico® MB13025	White Pellets	25%	PC	PC, PC/ABS
Silico® MB15050	White Pellets	50%	SAN	PVC, PC, PC/ABS