Product Catalogue & Technical Resource

SIL TECH

Your Technology Our Chemistry

A Comprehensive Guide to High-Performance Additives

SILTECH Innovative Silicone Specialties

Empowering the future with one of Earth's most abundant resources.

Siltech is a privately owned business, managed and operated by its owners for more than 35 years. We hope and believe that the pride we feel in this company channels its way through each of our employees and to every customer.

Siltech is a place where someone answers the phone when you call. It is a place where we feel passionate about the quality of our products and realize that our livelihood depends on satisfying you, our customer. Siltech is a place where you can source products with confidence.

Siltech develops and manufactures a full line of organo-functional silicone compounds and related specialties for a wide range of industrial and personal care applications, using our patented and otherwise proprietary technologies. Our expertise in specialized organo-modified silicone polymers has resulted in more than 40 patents. We always strive to create new materials with unique performance properties that are as yet unavailable.

Siltech owns and operates three manufacturing plants. Two are located in the Greater Toronto Area, and the third is located in Fort Erie, directly across from the US border. These plants are equipped with efficient, large-scale, high-temperature and pressure reactors, thin film evaporators and other modern equipment required in such unit processes as equilibration, hydrosylilation, quaternization, amidation, phosphation, esterification and homogenization. Siltech is ISO 9001:2015 and ISO 14001 registered.

Siltech serves a wide range of industries, such as personal care, polyurethane foam, inks and coatings, plastics and polymers, car care, textiles, automotive, oil and gas, HI&I, water treatment, leather, mining and composites. Change is truly the only constant in business, and Siltech understands and embraces the need to ride this wave of change.

While existing silicone-using industries evolve, and additional uses are identified and developed, newer industries to silicones, such as 3D printing, smart coatings, and oil and gas, are finding that many problems can be solved with creative new silicones.

Siltech's philosophy is to constantly innovate and create new products that provide you with enabling solutions to your problems. Siltech invests a substantial portion of our resources into R&D and new-product development.

Our R&D and technical service laboratories are modernly equipped and staffed by chemists with many decades of experience in diverse segments of the chemical processing industry. In addition, we have efficient pilot plant facilities available to produce special products for your experimental needs.

Siltech's commercial products are approved for use in most global jurisdictions. Siltech is committed to such compliance, and we have dedicated personnel to ensure this.

We have registered our current commercial products with European REACH legislation, and continue to work with our suppliers and customers to meet various global implementation deadlines.

Siltech is lessening our impact on the environment with ECOVADIS metrics, plant actions, product offerings which use bio-sourced carbon in our Silsurf and Silwax product lines, alternatives to regulatory targeted chemicals, carbon footprint calculations and internal targets and actions.

We are proud of the quality of the products described in this brochure. Most are available from stock on short notice. However, we will gladly manufacture other homologues to minimum order. Many problems, old and new, can be solved with new silicone specialties.

We welcome the opportunity to partner with customers, as we believe that this results in the most creative formulator-friendly and cost-effective silicone specialties possible.

Your Technology Our Chemistry

Toronto, Ontario, Canada - Head Office, Research Lab & Plant

Mississauga, Ontario, Canada - Plant

Fort Erie, Ontario, Canada - Plant

Advanced Silicone Products Contents

Innovative Silicone Specialties SILTECH

Silicone Polymers: Unleashing the potential of possibility.

Silicone is a polymer derived ultimately from minerals and synthetic feedstocks. This incredibly diverse material has been commercially available for over six decades and has found its way into our lives perhaps more than any other synthetic material.

Silicones are known for their very low toxicity, low surface energy (20 mN/m), low Tg (153°K), low flammability, lubricity, release, softness, conditioning, thermal stability, photostability, penetration, oxygen permeability, and many other unique features. These features are why silicones are found in the hair and skin products we use, the clothes we wear, the furniture we sit on, the houses we live in, the cars we drive, the electronics we play with, the drugs we take and the foods we eat.

Silicone polymers are known by many pseudonyms, including siloxane, polydimethylsiloxane (PDMS) and others. This most basic silicone polymer is chemically simple and is restricted by its incompatibility with other materials.

Whether these materials are water-like or oil-like, silicone is not miscible with them. Fortunately, silicone polymers are readily chemically functionalized by reacting them with a myriad of organic species. These hybrid organo-functional silicones can be completely water soluble, completely oil soluble, or even miscible with both milieus.

These specialized organo-functional silicones are used extensively to enable end users to solve difficult challenges. Their effect in and impact on the formulation dwarf the small percentages in which they are used.

From a safety standpoint, silicones are among the most thoroughly studied polymers and are recognized as having very little toxicity. They are approved in a wide variety of food, drug, medical, defense and other sensitive applications. Historical episodes of toxicity concerns and regulatory actions have not withstood scientific testing and have now been reversed.

Siltech's Specialty Silicones

Siltech's Silsurf products are chemical hybrids of polyalkyleneoxide polymers with silicone polymers. The resultant materials are surfactants and can be designed to be water-soluble, water-dispersible or water-insoluble.

The polyether functionality also confers miscibility with many organic materials, such as ketones, alcohols, ethers, aromatics and esters. Only the most lipophilic solvents such as mineral oils, are not miscible with these Silsurf structures.

This extremely useful family of organo-functional silicones finds utility in personal care products for softening, conditioning, shine or formula stabilization among other uses; inks and coatings as additives for flow and levelling, wetting, defoaming, slip, release, lubricity and mar resistance; polyurethane foam for stabilizing the foam as it reacts; many other industrial applications, as well as processing aides in many industries.

Siltech's Silsurf portfolio is vast and diverse. We can manufacture these commercially from 20 kg to 20 metric tons and routinely develop new Silsurf structures for specific customer needs.

Our Silwax line is the oil-soluble analogue of Silsurf surfactants. These materials are the chemical combination of silicone polymer with styrene or aliphatic alpha-olefins and are available from two to 32 carbon chain lengths. Designed to bring softness, surface tension reduction, wetting and gloss to waxes, polishes and other non-aqueous formulations, these are also emulsified for aqueous delivery applications such as mold release. Some of the more unique applications for these are making mineral oil feel like silicone oil and improving penetration of lubricants. Like that of their Silsurf cousins, our portfolio of Silwax products is unrivalled in breadth and diversity.

Siltech's Silube silicones offer both polyether and hydrocarbon moieties appended to the same silicone polymer and are very useful as emulsifiers and formulation stabilizers. The hydrocarbon confers lipophilicity, the polyether brings hydrophilicity, and the silicone provides the low surface and interfacial tensions critical to emulsion stability.

Reactive Silmer silicones contain the same reactive species attached to silicone as used by organic polymer manufacturers. The resultant Silmer products are reactive under the same conditions and allow modification of the polymers, modification of films or composites or homo-polymerization of the reactive silicones.

Organic systems are made more flexible and have improved mar resistance, are given more release and lubricity properties and often see advantages like stain resistance. All of the commonly used reactive groups are available, including acrylate esters, amino, epoxy (glycidyl and cycloaliphatic), hydride, hydroxyl, isocyanato, mercapto, trialkoxysilanyl and vinyl. Many are also available with solubilizing groups in addition to the reactive groups to improve miscibility and reactivity.

At Siltech's development labs in Toronto, we have made numerous systems with both homo-polymerized Silmer and co-polymerized Silmer/organic systems. Consequently, we have an extensive knowledge of how these systems react and what properties are brought in. These reactive silicones can be incorporated into polymers, thin films and three-dimensional elastomeric systems.

By including Silmer reactive silicones into these systems, we have seen increased flexibility, stain resistance and release, reduced coefficient of friction, improved surface wetting, and resistance to mar and abrasion. Given the number of different reactive silicones offered, any polymer and cross-linking system can be modified with silicone.

Fluorosil products are silicone polymers with perfluorobutylethyl or trifluoropropyl groups conjoined to the silicones. These molecules bring typical fluoroalkyl properties without perfluorooctyl concerns, and can often be made reactive as with Silmer products.

Siltech's Silquat products are alkylamino-modified silicones quaternized with methyl diethyl or methyl distearyl groups to provide a cationic material that is exceptional at migrating and attaching to surfaces, including from an aqueous solution, leaving behind a layer of hydrophobic silicone.

These highly unique materials are used in car care, textiles, hair care, hard surface treatments and other applications. Siltech's portfolio of Silquat quaternized silicones is unmatched in the industry: Siltech MQ and DTQ resins bring a new and unique tool to the silicon chemistry set. These materials are showing unique properties in many applications but especially so in protection and repellency.

Siltech antifoam products are silica-filled and/or Silmer MQ resin-fortified silicone oil compounds or emulsions. In formulating these products, we make use of our specialized technologies to maximize stability and performance. Many other unique products are available, so we invite you to peruse the pages of this brochure for ideas and then challenge us to build them.

SILTECH Innovative Silicone Specialties

Properties & Applications Guide

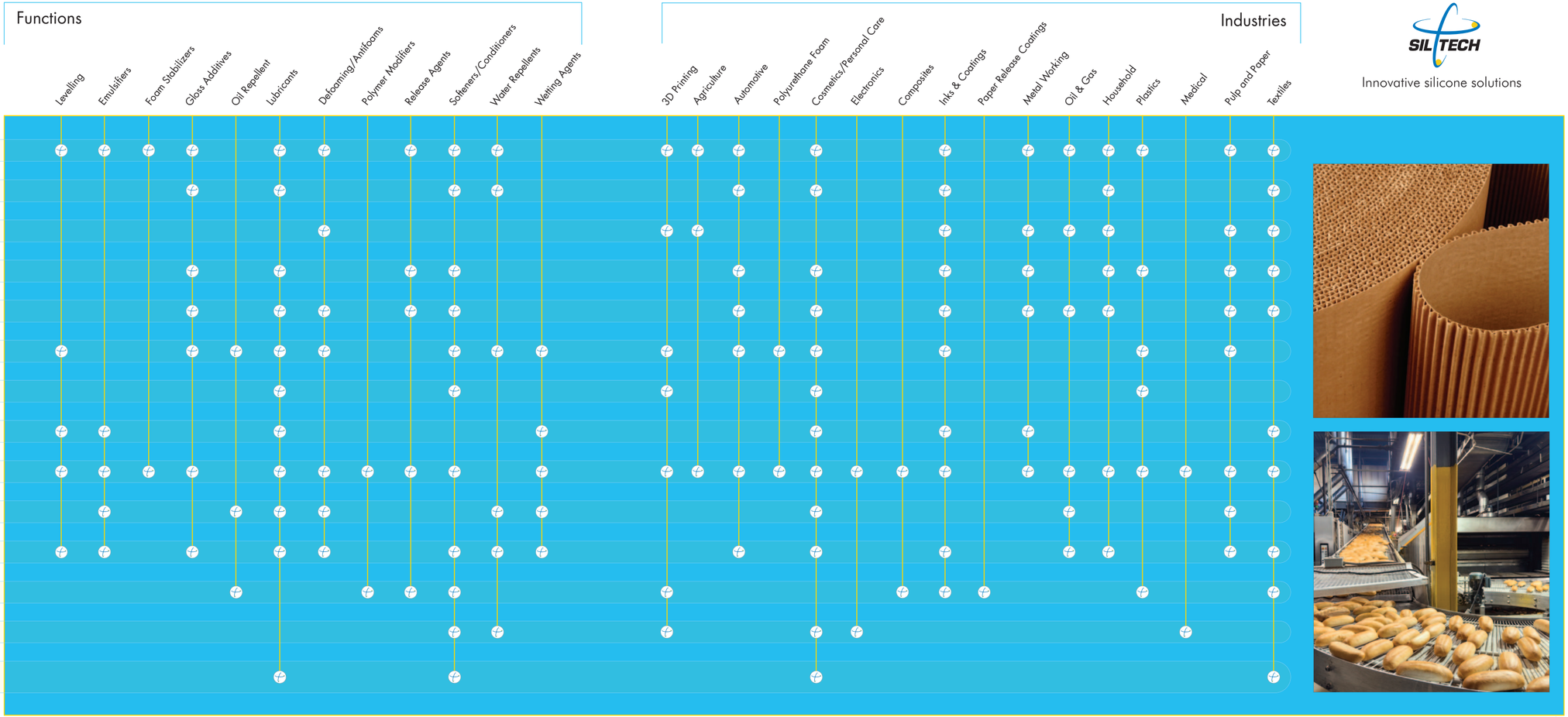
Siltech's Comprehensive Product & Technical Guide

This guide provides a clear overview of the applications and properties of Siltech's products, with a visual format designed to showcase their versatility across multiple industries.

Backed by decades of expertise in silicone technology, Siltech remains committed to delivering innovative solutions tailored to the unique requirements of a wide range of sectors.

Inside, you'll find simplified explanations and various functions and uses of our compounds, which are utilized in industries such as personal care, automotive, textiles, electronics and more. Siltech products are crafted to deliver exceptional performance and reliability.

In addition, the technical section offers detailed product data that demonstrates how Siltech's portfolio can elevate a variety of applications to achieve diverse and specific industry needs.



SILTECH

Innovative silicone solutions

Silicone Polyethers - Silsurf

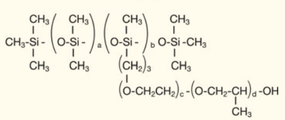
Silicone polyethers, also known as dimethicone copolyols in the personal care industry, contain both a water-insoluble silicone backbone and a number of water-soluble polyether pendant groups. The ratio of the silicone to polyether and the molecular weight and composition of the components determine the solubility and specific properties of a product. These products exist as multi-pendant and linear-difunctional polymers. Siltech offers a broad range of silicone polyethers as well as custom-designed products for specific applications. These are also available in cosmetic grades and/or lower carbon footprint with bio-based organic chains.

Formulation performance
you can see and feel.

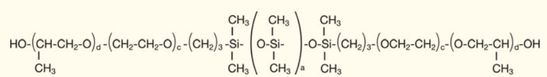
SILTECH

Innovative silicone solutions

Multi



Linear



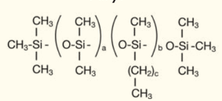
Products	Properties and Applications	Appearance	Colour (Gardner)	Cloud Point (°C)	Viscosity (cps@25°C)	Molecula Weight	Density (g/ml)	Refractive Index	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silsurf A008-UP	Shortest silicone chain possible for silicone polyethers. These products are excellent wetters. Used in textiles, agricultural, paints and coatings, and any other applications where superior wetting is required. Also act as a flow and levelling aid in paints and coatings.	Clear, light straw liquid	<2	35	75	650	1.034	1.450	D	D	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf A004		Clear, light straw liquid	<2	N/A	45	500	0.99	1.450	I	I	S	S	I	I	I	I	S	S	D	I	D	D
Silsurf C208	Water-soluble silicone polyether. Used frequently in industrial and personal care applications. Provides surface tension reduction, conditioning and lubricity. Provides good wetting and is more hydrolytically stable than Silsurf A008-UP.	Clear, light straw liquid	<2	58	200	2,000	1.070	1.449	S	S	S	S	I	I	I	I	S	S	I	I	D	I
Silsurf J208	Similar to Silsurf C208 but higher molecular weight. Is more substantive and provides thicker foam than Silsurf C208 and Silsurf D212-CG. Used as a conditioner and lubricant.	Clear, light straw liquid	<2	60	600	6,300	1.079	1.453	S	S	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf D212-CG	Low-odour, cosmetic-grade silicone polyether. Used in personal care applications. Provides conditioning and lubricity.	Clear, light straw liquid	<2	55	320	2,800	1.070	1.449	S	S	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf B608	Self-emulsifying in water. Can be used as an oil-in-water emulsifier. Also useful as a lubricant in textile and personal care applications.	Clear, light straw liquid	<2	N/A	200	2,000	1.034	1.432	D	D	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf C410	Water-dispersible silicone polyether. Used as a lubricant in textiles and personal care. Useful as slip agent in inks and coatings.	Clear to hazy light straw liquid	<2	RT	400	2,700	1.047	1.445	D	D	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf E608	Water-dispersible silicone polyether. Provides slip and mar resistance to paints and coatings. Also used as a lubricant.	Clear, light straw liquid	<2	RT	700	4,700	1.040	1.437	D	D	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf J1015-O	High-molecular-weight, water-soluble ethoxylated and propoxylated silicones. Provide slip and mar resistance, and act as a flow and levelling agent in paints and coatings. Also act as a lubricant and emulsifier in personal care applications. Silsurf J1015-O-AC is an acetoxy-capped version of Silsurf J1015-O.	Clear, light straw liquid	<2	40	2,000	24,000	1.029	1.444	S	S	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf J1015-O-AC		Clear, light straw liquid	<2	32	2,000	24,500	1.029	1.440	S	S	S	S	I	I	I	I	S	S	D	D	S	I
Silsurf Di-1010	Polyether-terminated silicones. Used in personal care and industrial applications where lubricity and conditioning are needed. Can be reacted with isocyanates, epoxides and other reactive compounds to modify resins and coatings.	Clear, light straw liquid	<2	RT	250	1,800	1.040	1.441	D	D	S	S	I	I	I	I	S	S	I	I	D	D
Silsurf Di-2510		Clear to hazy liquid	<2	RT	450	3,000	1.020	1.441	I	I	S	S	I	I	D	I	S	S	I	I	D	D
Silsurf Di-15I		Clear, light straw liquid	<2	N/A	200	2,400	1.040	1.440	I	I	S	S	S	S	I	I	S	S	S	D	D	I
Silsurf Di-5018-F	Polyether-terminated silicone. Gel-like at room temperature. Used as a lubricant and as a chain modifier for resins and coatings.	Clear, light straw gel at RT	<2	N/A	Gel at RT	6,200	0.986	1.428	D	I	S	S	S	S	I	I	S	S	D	D	D	D

Alkylated Silicones - Silwax

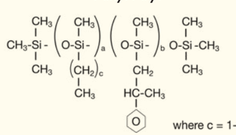
Silwax alkylated silicones are based on alkyl pendant groups ranging from C2 to C32. The ratio of silicone to alkyls and the chain length of the alkyls determine the melting point and liquidity of the final product. These products can range from liquids to soft pastes to hard waxes. They are excellent lubricants in textile, metalworking and automotive applications. They impart water and solvent repellency to textiles, and flow, levelling, slip and mar resistance to inks and coatings. They also provide gloss, emollience and softness in personal care applications. The Silwax alkylated silicones are represented by both alkyl and alkyl aryl silicones. Silwax products are also available with lower carbon footprint with bio-based organic chains.

Siltech formulations provide seamless integration into existing systems.

Alkyl



Alkyl Aryl



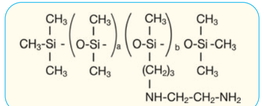
Products	Properties and Applications	Appearance	Colour (Gardner)	Melting Point (°C)	Viscosity (cps@25°C)	% Alkyl	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Propylene Glycol 1%	Propylene Glycol 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Hisol 10 1%	Hisol 10 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silwax D02	Liquid silicone alkylates, compatible with many organic systems. Used as lubricants and provide softness and gloss to industrial and personal care applications.	Liquid	<1	<-20	10	20	I	I	S	S	I	I	S	S	S	S	S	S	S	S	S	S
Silwax E1316		Liquid	<1	<-20	140	20	I	I	I	I	I	I	S	S	S	S	S	S	S	S	S	D
Silwax H416		Liquid	<1	-10	110	40	I	I	I	I	I	I	S	S	S	S	S	S	S	S	I	I
Silwax B116		Liquid	<1	-4	25	50	I	I	I	I	I	I	S	S	S	S	S	S	S	S	D	I
Silwax L118	Gel-like at room temperature. Provide good slip, lubricity and emollience to shampoos, creams and conditioners as well as slip, hydrophobicity and protection to industrial applications.	Gel	<1	30	N/A	65	I	I	I	I	I	I	S	S	S	S	S	S	I	I	I	I
Silwax J1022		Gel	<1	20	100	30	I	I	I	I	I	I	S	S	S	S	S	S	S	D	I	I
Silwax D222	Soft, lubricous waxes. Used in personal care, industrial and other applications where lubricity and softness are needed.	Soft wax	<1	37	N/A	55	I	I	I	I	I	I	S	S	S	S	S	S	I	I	I	I
Silwax D226		Soft wax	<1	54	N/A	60	I	I	I	I	I	I	S	S	S	S	S	S	I	I	I	I
Silwax J1026		Soft wax	<1	46	N/A	30	I	I	I	I	I	I	S	S	S	S	I	I	I	I	I	I
Silwax J226	High-melting-point silicone waxes. Used in lipstick applications, in textiles as a softener and water and solvent repellent, and in other industrial applications such as waxes.	Hard wax	<1	51	N/A	60	I	I	I	I	I	I	I	I	S	D	I	I	I	I	I	I
Silwax D026		Hard wax	<1	65	N/A	80	I	I	I	I	I	I	I	I	S	S	S	D	I	I	I	I
Silwax J1032		Hard wax	<1	60	N/A	35	I	I	I	I	I	I	S	D	S	D	I	I	I	I	I	I
Silwax Di-5026	Difunctional alkyl silicone that gives excellent lubricity and slip.	Soft wax	<1	31	N/A	15	I	I	I	I	I	I	S	S	S	S	S	S	I	I	I	I
Silwax D221M	Series of multi-domain-silicones. Silicone waxes that contain both liquid and solid alkyl chains on the same molecule. This results in products that are easily spreadable, yet also provide excellent cushion and a long-lasting feel in personal care products and ease of application with gloss and durability in industrial applications such as waxes and polishes.	Soft wax	<1	35	N/A	53	I	I	I	I	I	I	S	S	I	I	S	S	I	I	I	I
Silwax J219M		Soft wax	<1	30	N/A	55	I	I	I	I	I	I	S	S	S	S	S	S	I	I	I	I
Silwax J221M		Soft wax	<1	32	N/A	58	I	I	I	I	I	I	S	S	S	I	S	S	I	I	I	I
Silwax Di-1021M		Soft wax	<1	37	N/A	40	I	I	I	I	I	I	S	S	S	I	S	S	I	I	I	I
Silwax 3H32	Siloxane with C32 alkyl groups that provides improved durability, gloss and water repellence for various waxes and polishes.	Hard wax, prilled	<1	70	N/A	90	I	I	I	I	I	I	I	I	I	I	S	I	I	I	I	I
Silwax CR 5016	Loosely cross-linked alkyl silicone that gives better substantivity and surface migration.	Liquid	<1	-10	110	40	I	I	I	I	I	I	S	S	S	S	S	S	S	S	D	D
Silwax 3H12-MS	A alkyl aryl siloxane based on C12. Used as a paintable release agent for die-casting metals, molding, plastics, etc.	Liquid	<1	N/A	1,200	70	I	I	I	I	I	I	S	S	S	S	S	S	S	I	D	I
Silwax 3H2-MS	A alkyl aryl siloxane based on C2. Acts as a paintable mold release agent for plastics and rubber.	Liquid	<1	N/A	1,000	45	I	I	D	D	D	D	S	S	S	S	S	S	S	S	D	D
Silwax 3H-MS	Aryl siloxanes that have a very high refractive index and give excellent shine to various substrates in personal care and industrial applications.	Liquid	<1	N/A	8,000	65	I	I	D	D	D	D	S	S	S	S	S	S	D	I	I	I
Silwax D0-MS		Liquid	<1	N/A	100	55	I	I	S	S	D	D	S	S	S	S	S	S	S	S	D	I

Silicone Amines – Silamine

1. Primary-Secondary Amines

These are aminoethylaminopropyl-based amines.

Engineered for performance across diverse applications.



Products	Properties and Applications	Colour	Viscosity (cps@25°C)	Amine Value
Silamine 2972	Aminopropylmethylpolysiloxane that can impart softness and durability to textiles and are very low yellowing. In personal care applications, it provides good conditioning to hair and provides good feel and delivery properties to creams and lotions.	<1	1,500	15
Silamine MUE-2	Amino-functional polydimethylsiloxane that is reactive with fibres, textiles, automobile surfaces and plastics. Used in both solvent and water-based polishes to give a durable shine to various surfaces and can impart softness to textiles. Has higher amine value than Silamine 2972 so will be more durable.	2	2,000	28
Silamine T-97	Aminoethylaminopropyl polysiloxane with high % branched alkyl group to improve organic compatibility. Imparts softness to textiles and improved hair conditioning.	1	50	10
Silamine DG-50	Amino-functional polydimethylsiloxane. Excellent durable gloss for automotive polishes and hard surface cleaners. This clear to hazy liquid is 50% active in mineral spirits and isopropyl alcohol.	<1	150	16

Innovative silicone solutions SILTECH

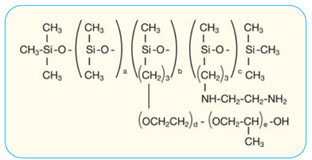
The 14th element in the periodic table

Silicon, one of the most abundant elements in the Earth's crust, has been used by humankind for thousands of years. Ancient civilizations such as the predynastic Egyptians and early Chinese artisans recognized the value of silicon-rich rock crystals, using them in decorative objects, jewelry, glassware, and even small vases. Early builders also relied on natural silicate compounds in mortars to construct dwellings and other structures.

The term "silicon" originates from the Latin word silex, meaning flint or hard stone, materials we now refer to as silica or silicates. The element was first identified in 1787 by Antoine Lavoisier as a component of silex. In 1800, Humphry Davy mistakenly classified it as a compound. It wasn't until 1811 that Gay-Lussac and Thénard likely produced impure amorphous silicon by heating potassium with silicon tetrafluoride. Finally, in 1823, Jöns Jacob Berzelius correctly identified silicon as an element and refined the process to produce and purify it. Building on this long legacy of innovation, Siltech transforms one of nature's oldest materials into modern solutions. From industrial applications to personal care products, Siltech's expertise reflects centuries of evolution in silicon science, transforming one of nature's oldest materials into solutions for modern performance.

2. Solubilized Primary-Secondary Amines

The aminoethylaminopropyl silicone is solubilized with polyether groups. These products add softness and lubricity in personal care and textile applications. They are substantive to fibres and are low yellowing.



Products	Properties and Applications	Colour (Gardner)	Molecular Weight	Equivalent Weight	Amine Value
Silamine AS	100% active amino silicone.	3	3,000	3,000	2.0
Silamine C-100	50% active in water.	3	2,500	2,500	1.0
Silamine PD	90% active in water.	3	3,500	3,500	4.0
Silamine D208 EDA	100% active amino silicone.	3	2,500	2,500	22

Tailored solutions for global formulation needs.

Powered by Siltech

It's hard to imagine life without silicone. Derived from silica, silicone polymers are used in countless products for their flexibility, water resistance, and durability. At the heart of this innovation is Siltech, a global leader in specialty silicones that help formulators enhance performance across industries. From the slip agents in your shampoo to the surface enhancers in electronics, silicones improve texture, feel, and function. You're likely touching them right now, in your phone screen, keyboard, or furniture coatings. You could even be wearing silicone products. In textiles, our softeners and hydrophobes add comfort, stretch, and water resistance to clothing, activewear, and technical fabrics.

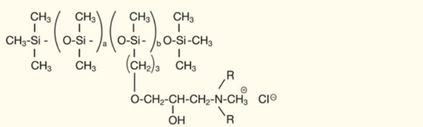
Silicones are used in automotive fluids, gaskets, and coatings that protect against heat, friction, and wear, ensuring vehicles run longer and more efficiently. At home, Siltech's technologies are found in many products, including sealants, paints, and construction materials that offer weatherproofing, UV protection, and long-lasting aesthetics. From personal care to industrial coatings, Siltech helps make products look better, last longer, and perform smarter. That's why formulators around the world trust Siltech to deliver silicone solutions that work, for everyone, everywhere.

Silicone Quaternary Compounds – Silquat

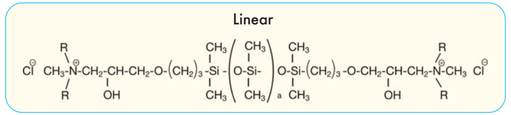
Siltech offers two classes of quaternary compounds:
1. Silicone Dialkyl Quats, 2. Silicone Polyether Fatty Quats

1. Silicone Dialkyl Quats. The alkyl group can range from C1 to C18. These are 70% active in hexylene glycol, except as otherwise noted. Many of these Silquats can be made in other solvents than those listed here. The dialkyl quats are substantive to fibres, are non-yellowing and provide softness, lubricity and anti-stat properties in textile applications. They also provide water repellency to glass and automotive surfaces.

Multi

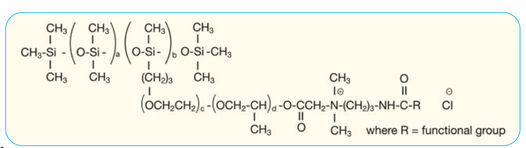


Linear



2. Silicone Polyether Fatty Quats.

The fatty group can range from lauric to stearic.



Products	Properties and Applications	Appearance	Colour (Gardner)	Alkyl Group	Contact Angle°	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silquat A0	Shortest silicone chain quat. Used in coatings as a levelling agent, and in textiles as a wetter and for anti-stat, lubricity and slip.	Clear amber liquid	3	C2	72	S	S	S	S	I	I	I	I	I	I	I	I	I	I
Silquat J2	Water-soluble quat. Substantive to hair and fibres.	Clear amber viscous liquid	3	C2	83	S	S	S	S	I	I	I	I	I	I	I	I	I	I
Silquat J15	Water-insoluble quat. Gives excellent water repellency to glass and automotive surfaces.	Clear amber viscous liquid	3	C2	101	I	I	S	S	I	I	I	I	I	I	I	I	I	I
Silquat Di-10	Difunctional linear silicone quats. Silquat Di-25 has a higher percentage of silicone.	Clear amber liquid	3	C2	87	S	D	S	S	I	I	I	I	I	I	I	I	I	I
Silquat Di-25			3	C2	93	D	D	S	S	I	I	I	I	I	I	I	I	I	I
Silquat J2-B	Products contain low ratio of silicone to fatty groups. Silquat J2-B has a lower molecular weight than Silquat J15-B.	Clear amber viscous liquid	3	C18	91	I	I	S	S	S	S	S	S	S	S	D	I	D	I
Silquat J15-B	Contains a higher ratio of silicone to fatty groups than Silquat J2-B. Provides water repellency and increased softness and hand to textiles.	Clear amber viscous liquid	3	C18	100	I	I	S	S	S	S	S	S	S	S	S	S	D	D
Silquat J208-1B	Products have polyether groups incorporated to make them more water-soluble.	Clear amber viscous liquid	3	C18	N/A	S	S	S	S	I	I	I	I	S	S	I	I	D	I
Silquat CR 4000 PD	Very-high-molecular-weight water-soluble silicone quaternary compound. 70% active in hexylene glycol. Excellent hair conditioner for both clear and opaque 2-in-1 shampoos.	Clear to cloudy liquid	5	C2	90	S	S	S	S	D	I	D	I	D	I	D	D	D	D
Silquat 3180	Water-dispersible blend of high-molecular-weight and low-molecular-weight silicone quats. 70% active in hexylene alcohol.	Clear amber viscous liquid	3	C2	96	D	D	S	S	I	I	I	I	S	S	I	I	D	I
Silquat 3150	Water-dispersible silicone quats. These products are blends of fatty quats and silicone quats. Excellent beading for car care products.	Clear amber viscous liquid	3	C2	98	D	D	S	S	S	S	I	I	I	I	I	I	D	I
Silquat 3152			3	C2	94	S	D	S	S	I	I	I	I	I	I	D	I	D	D

Products	Properties and Applications	Appearance	Colour	Viscosity (cps@25°C)	Functional Group	Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silquat AD	These products provide lubricity and softness to fibres. The water solubility can be varied according to the ratio of silicone, polyether and the molecular weight of the alkyl group. Compatible with anionic systems. Provides outstanding conditioning and anti-stat for 2-in-1 shampoos. Does not adversely affect foam. Silquat AD and AC are 40% active in water.	Clear to hazy yellow liquid	3	20	Dimer	S	S	S	S	I	I	I	I	I	I	I	I	I	I
Silquat AC		Clear to hazy yellow liquid	3	20	Coco	S	S	S	S	I	I	I	I	I	I	I	I	I	I

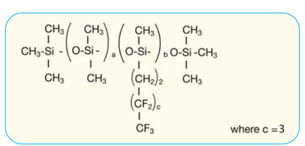
Silicone Polyether Esters and Carboxylates

Siltech offers a series of silicone polyether esters and carboxylates based on fatty acids such as lauric and isostearic. These products are excellent emulsifiers and provide good conditioning to hair and fibres. The fatty portion of the molecule as well as the molecular weight of the silicone can be altered to suit customer needs.

Products	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silwax WD-IS	Silicone isostearate. Forms a lubricious micro-emulsion in water. Excellent for making oil or silicone-in-water emulsions.	Clear liquid	2	200	D	D	S	S	I	I	D	I	S	S	D	I	D	I
Silwax WS-L	Silicone laurate. Acts as an emulsifier, slip additive and conditioner.	Clear liquid	2	200	S	S	S	S	I	I	I	I	S	S	D	I	D	I
Silube CS-1	Carboxy silicone in the free acid form based on succinic acid. Excellent emulsifier and complexation agents for quats and amines.	Clear liquid	2	3,000	S	I	S	S	I	I	D	I	D	I	D	I	D	I
Silube CSO Di-25	Oil-in-water emulsifier and pigment dispersant. Especially effective for chemical sunscreens.	Clear liquid	3	250	I	I	S	S	S	S	I	I	S	S	S	S	S	Slightly dispersible
Silube CS Di-25	Oil-in-water emulsifier and pigment dispersant. Especially effective for physical sunscreens.	Clear to cloudy liquid	1	250	I	I	S	S	S	S	D	I	S	S	S	S	D	I

Fluorinated Silicones – Fluorosil

Siltech offers a series of fluorinated silicones as well as fluorinated silicones that also contain alkyl or polyether pendant groups. By virtue of the fluorine group, these products offer good solvent resistance, lubricity and slip. The ratio of fluorine and silicone can be varied to suit customer needs.



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Performance you can see and feel.

Products	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	% Fluoro	% Alkyl	% Ethylene Oxide	Refractive Index	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Fluorosil J15	Fluorinated silicone. Superior slip and lubricity in cosmetic and industrial applications.	Clear, light straw liquid	<1	500	17	0	0	1.399	I	I	I	I	S	S	I	I	S	S	S	S	S	S
Fluorosil H418	Liquid alkylfluorosilicone. Provides slip and lubricity.	Clear, light straw liquid	<1	300	20	20	0	1.422	I	I	I	I	S	S	S	S	S	S	S	S	S	D
Fluorosil 2010	Fluorinated silicone polyethers. The water solubility can be varied to suit customer needs.	Clear, light straw liquid	<1	800	3	0	70	1.451	S	S	S	S	I	I	I	I	S	S	I	I	D	I
Fluorosil TFP 1000	Medium-molecular-weight trifluoropropyl silicone oil.	Clear, colourless liquid	1	1,000	13	0	0	1.38	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Fluorosil TFP 10,000	High-molecular-weight trifluoropropyl silicone oil.	Clear, colourless liquid	1	10,000	13	0	0	1.38	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Silicone Elastomer Gels

The Silmer G-162 series is a group of related silicone elastomers that are based on unique dimethicone/vinyl dimethicone cross polymers in cyclopentasiloxane. The different products vary in the modifier added to the base polymer, which alters the ultimate aesthetics. Silmer G-162 series elastomers are easy to formulate and improve gloss, pigment dispersion and softness to many personal care products. Silube 550 is based on urethane siloxanes.

Products	Properties and Applications	Appearance	% Solids	Viscosity (cps@25°C)	Solvent	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 cP PDMS 1%	350 cP PDMS 10%
Silmer G-162-F5	Silicone urethane resin that can be incorporated into coatings and fabric protectants to provide good water and soil repellence.	Clear to translucent smooth gel	90-100	700,000	Dimethicone (5 cSt)	I	I	I	I	I	I	I	I	I	I	S	S	S	S
Silmer G-162-IDD	Used in formulating various personal care products to provide a dry, soft, powdery-skin feel.	Clear to translucent smooth gel	20-Oct	650,000	Isododecane	I	I	I	I	I	I	I	I	I	I	D	D	S	S
Silmer G-165-F5	More cushion and play time.	Clear to translucent smooth gel	90-100	400,000	Dimethicone (5 cSt)	I	I	I	I	I	I	I	I	I	I	S	S	S	S
Silmer G-165-IDD	Forms thinner and more spreadable film.	Clear to translucent smooth gel	20-Oct	400,000	Isododecane	I	I	I	I	I	I	I	I	I	I	D	D	S	S

The secret to luxurious texture and lasting wear.

Innovative silicone solutions SILTECH

World-Class Manufacturing

Siltech's manufacturing capabilities are anchored by three modern facilities in Ontario, Canada, each purpose-built to deliver exceptional quality, consistency, and supply security. Our Toronto plant, designed by our founder, serves as the blueprint for all our operations. Here, both pilot reactors and larger kettles operate under the same precise processes, ensuring seamless scale-up and reproducibility from small batches to full production runs.

The Mississauga plant, acquired in 2010 to support rapid growth, has been fully modernized to match Toronto's high standards. This site features expanded capacity and upgraded control systems, enabling efficient production while maintaining the same exacting quality standards. Opening in September 2025, the Fort Erie plant will be our most advanced facility to date. Designed for large-scale specialty silicone manufacturing, it will feature state-of-the-art automation, environmental controls, and energy-efficient systems, further enhancing our ability to meet growing global demand and secure long-term supply for our customers.

Together, our facilities offer more than 45,000 m² of manufacturing floor space and reactors ranging from 20 to 30,000 kg. With R&D teams located on-site at each plant, we ensure rapid technical support for manufacturing and maintain the flexibility to launch innovative new products while meeting diverse customer requirements.

Siltech's Commitment to Sustainability

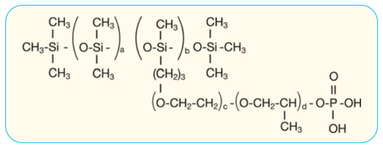
Siltech is dedicated to reducing its environmental impact through innovation, responsible action, and continuous improvement. We invest in modernizing our facilities to enhance manufacturing efficiency, reduce waste, and minimize energy and water use.

Our silicones have a low environmental footprint due to their minimal usage levels and degradation into non-toxic byproducts like silica, CO_2, and water. We actively develop sustainable alternatives, including VOC-reducing additives, fluorosilicone polymers, and replacements for traditional cyclosiloxanes in personal care products. Compared to petroleum-based materials, silicones are more efficient and do not compete with food resources such as palm or soybean oil.

Our solutions support sustainability across industries by improving energy efficiency, enhancing resource recovery, and enabling greener formulations. We prioritize eco-friendly raw materials and expect the same from our partners, while actively engaging and informing all employees to ensure everyone contributes to our shared commitment to environmental sustainability.

Silicone Phosphates – Silphos

Siltech offers a series of phosphated silicone polyethers that are available as free acids or sodium salts. Silicone phosphates exhibit good foaming, emulsification, detergency and wetting properties and, due to their anionic character, have good substantivity to glass and other surfaces. Phosphates also help sequester iron and other metal ions and have good rust-inhibition properties.



Products	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silphos A-100	Silicone polyether phosphate ester in free acid form. Excellent emulsifier, dispersant and anti-stat.	Clear yellow liquid	1	300	S	S	S	S	I	I	I	I	I	I	I	I	I	I
Silphos J208	Higher molecular weight than Silphos A-100.	Clear yellow liquid	2	600	S	S	S	S	I	I	I	I	I	I	I	I	I	I

Innovative silicone solutions

Solutions for real-world challenges.

Silicone Anionic/Cationic Complex – SilPlex

Siltech offers a series of silicone complexes that are the salts of anionic and cationic silicones.

Products	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
SilPlex J2-S	Unique complexes of varying silicone quaternary compounds and anionic silicone compounds. These water-soluble silicones are compatible with anionic surfactants and provide outstanding conditioning to hair and skin and softening to textile fibres. Very mild to the skin and eyes, making their use in baby shampoos an important application.	Clear liquid	2	700	S	S	S	S	I	I	I	I	I	I	I	I	I	I
SilPlex JQ-40		Clear liquid	2	20	S	S	S	S	I	I	I	I	I	I	I	I	I	I

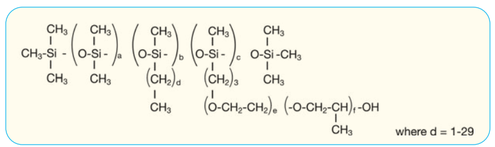
Castor Oil Silicones

These silicones are modified to have the natural castor oil triglyceride attached to the silicone backbone, making these silicones more compatible with castor-oil-containing consumer products. For personal care products, these silicones add gloss and give an excellent feel. For inks and coatings, they enhance slip and mar resistance. The hydroxyl group can also be reacted into certain coating systems to provide anti-graffiti properties.

Product	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	% Castor Oil	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%	Triglyceride 1%	Triglyceride 10%
Silube CO Di-10	Linear castor-oil-based silicone.	Clear liquid	3	1,000	80	I	I	S	S	S	S	D	I	S	S	I	I	D	I	S	S
Silube CO Di-50		Clear liquid	3	2,400	40	I	I	S	S	S	S	D	I	S	S	I	I	D	I	I	I

Alkylated Silicone Polyethers – Silube

Siltech offers a series of alkylated silicones co-reacted with polyethers to make them either fully or partially soluble in water. The products listed below represent only a partial list. Siltech has the capability of offering any alkylated silicone wax in a water-soluble form. The Silube products are represented by the following structure:



Products	Properties and Applications	Appearance	Colour (Gardner)	Viscosity (cps@25°C)	% Alkyl	% Ethylene Oxide	Solubilities at Room Temperature: Water 1%	Water 10%	IPA 1%	IPA 10%	Mineral Spirits 1%	Mineral Spirits 10%	Mineral Oil 1%	Mineral Oil 10%	Aromatic Solvents 1%	Aromatic Solvents 10%	Cyclo Methicone 1%	Cyclo Methicone 10%	350 Viscosity Silicone Fluid 1%	350 Viscosity Silicone Fluid 10%
Silube T308-16	Water-insoluble silicone alkyl polyether. Provides good lubricity and is a good water-in-oil emulsifier for creams and lotions used in the personal care industry.	Clear liquid	1	800	30	12	I	I	S	S	S	S	S	S	S	S	S	D	I	I
Silube 2310	Water-insoluble silicone alkyl polyether. Provides good lubricity and is a good water-in-oil emulsifier for creams and lotions used in the personal care industry.	Clear to hazy liquid	1	6,000	35	15	I	I	S	S	S	S	S	S	S	S	S	D	D	D
Silube FF108-16	Water-soluble silicone alkyl polyether. Provides good lubricity and is a good oil-in-water emulsifier when used in combination with Silube T308-16.	Clear liquid	1	1,500	10	60	S	S	S	S	I	I	D	I	D	I	I	I	D	I
Silube J208-212	Water-soluble alkyl silicone polyether. Good oil-in-water emulsifier.	Clear liquid	1	1,000	6	48	S	S	S	S	I	I	I	I	I	I	I	I	I	I
Silube J208-412	Water-dispersible alkyl silicone polyether. Good oil-in-water emulsifier.	Clear liquid	1	800	13	39	D	D	S	S	I	I	I	I	S	S	I	I	I	I
Silube J208-612	Water-dispersible silicone alkyl polyethers. Good ester-in-oil emulsifier.	Clear liquid	1	600	22	28	D	I	S	S	S	S	I	I	S	S	I	I	I	I
Silube J208-812	Water-insoluble alkyl silicone polyether. Good water-in-oil emulsifier.	Clear liquid	1	300	32	16	I	I	S	D	S	D	S	S	S	S	S	D	I	I

Siltech is a Solutions Partner

We have built our business and reputation on creating new silicones for new customers with new applications. Our R&D, Technical Service, and Process R&D laboratories are modern, well-equipped, co-located with our manufacturing facilities, and staffed with first-class chemists and engineers. These scientists have years of experience in synthesis and key applications such as personal care, polyurethane foam stabilization, inks and coatings, and silicone gel formulation. Our first-rate analytical labs support the quality of our manufactured products as well as new-product development and technical service. Our track record of innovation and outside-the-box problem solving is demonstrated by our broad portfolio of product types. Our early history as an organic surfactant company gives us a different perspective from the other silicone manufacturers and results in classic organic surfactant derivations to silicone, such as our Silamine®, Silphos® and Silquat® products. All are commercial grades. We are continually adding chemists and the latest equipment to make sure our R&D capabilities support all of your needs. Our typical approach is to develop products directly with our customers.

Everyone claims to be innovative and to like to partner.
The difference is we actually do it every day. It's our norm!

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Silicone T & Q Resins

Silmer TQ Resins
Silmer TQ Resins are the kinetic reaction products of silicates with trimethyl siloxy groups generating a silicon cross-linked network. These basic Q resins are referred to as MQ resins because they are a complex of silicon atoms attached to four oxygen atoms (Q group) endcapped with silicon atoms attached to one oxygen group and three alkyl ligands (M group).
We have developed unique Silmer T and Q Resins that include T groups (silicon attached to three O atoms) and D groups (silicon atom attached to two O atoms). These add improved flexibility and other silicone character to the basic MQ Resins. The result is a class of substances that add a new performance dimension to your repertoire. We have found superior repellency, including oil repellency with these unique products. They also improve some classic MQ resin applications by adding flexibility back into the network. We believe the future will show other applications for these exciting new materials. Depending on the specific structures, molecular weights and cross-link densities, these are available as pourable liquids or solids diluted in solvents.

Products	M:Q Ratio	Viscosity (cps@25°C) Appearance	% Actives	Molecular Weight	Refractive Index
Silmer Q20	2:1	250, Clear liquid	100%	2,000	1.404
Silmer Q12IDD	1.25:1	20, Clear liquid	70% in isododecane	2,500	1.413
Silmer Q12XYL	1.25:1	10, Clear liquid	70% in xylene	2,500	1.413
Silmer Q9IDD	0.9:1	20, Clear liquid	70% in isododecane	4,700	1.413
Silmer Q9XYL	0.9:1	10, Clear liquid	70% in xylene	4,700	1.413
Silmer QT9-30-CG	0.9:1	25, Clear pale yellow liquid	70% in isododecane	5,000	1.413
Silmer DTQ-75	NA	250, Clear liquid	100% in xylene	1500-2000	1.378
Silmer DT-25	N/A	140, Clear liquid	100% in xylene	1500	1.406
Silmer T35	N/A	25, Clear liquid	100% in xylene	500-1000	1.401

Silicone T & Q Resins

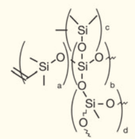
Silmer HQ Containing Resins
Silmer HQ Resins are MQ resins with reactive hydride groups. These can be used in two-component siloxane VIN/SiH cured systems to help improve rheological properties such as tear strength and elongation.

Products	Description	M:Q Ratio	Viscosity (cps@25°C) Appearance	% Actives	Molecular Weight	% Hydride
Silmer HQ20	Low-molecular-weight MQ resin with all "M" endcapped portions functionalized with SiH.	2:1	12, Clear liquid	100%	2,000	0.65
Silmer HQ203	Higher-molecular-weight MQ resins. Contains less SiH than Silmer HQ 20.	2:1	100, Clear liquid	100%	2,500	0.12

Silicone T & Q Resins

Silmer VQ Resins
Silmer VQ Resins are MQ resins with reactive vinyl groups. These can be used in two-component siloxane VIN/SiH cured systems to help improve rheological properties such as tear strength and elongation.
The G-180 series are blends of VQ resins and vinyl terminated siloxanes for ease of use.

Silmer VTQ Resins



Products	M:Q Ratio	Viscosity (cps@25°C) Appearance	% Actives	Molecular Weight	% Vinyl
Silmer VQ20	2:1	1,000, Clear liquid	100%	2,000	12.0
Silmer VQ92XYL	0.9:1	20, Clear liquid	70%	4,700	2.0
Silmer VQ92IDD	0.9:1	30, Clear liquid	70% in isododecane	4,700	2.0
Silmer G-180	0.9:1	14,000, Clear liquid	50% VQ92 in Silmer VIN 1,000	Not applicable	1.0
Silmer G-181	0.9:1	50,000, Clear liquid	50% VQ92 in Silmer VIN 10,000	Not applicable	1.0
Silmer G-182	0.9:1	70,000, Clear liquid	50% Silmer VQ92 in Silmer VIN 65,000	Not applicable	1.0

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Silicone T & Q Resins

Silmer Polyether MQ Resins
These are highly branched silicone polyethers. Due to their branched properties, these products can provide for better substantivity than standard silicone polyethers and also act as improved carriers for applications such as defoaming.

Products	OH Value	Viscosity (cps@25°C) Appearance	Refractive Index	Cloud Pt (°C)	Molecular Weight
Silsurf Q25315-O	30	500, Clear liquid	1.448	44	2,000
Silsurf Q20308	55	800, Clear liquid	1.439	<25	3,000

Reactive Silicones – Silmer

The Silmer line of reactive silicones consists of both multifunctional and linear-difunctional silicone pre-polymers with reactive terminal end groups. The silicones can be co-reacted into various polymers for coatings, plastics, resins and other applications to incorporate a silicone moiety into a polymer structure. Some basic homologues are offered in each class, but other homologues can be custom made.

Siltech offers 12 classes of reactive silicones:

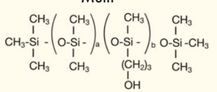
1. Silmer OH, **2**. Silmer OHT, **3**. Silmer ACR, **4**. Silmer OH ACR, **5**. Silmer NCO, **6**. Silmer NH, **7**. Silmer TMS, **8**. Silmer H, **9**. Silmer EP, **10**. Silmer VIN, **11**. Silmer SH, **12**. Silmer ACRN and ACRT

1. Silmer OH – Hydroxyl-Functional Pre-Polymer

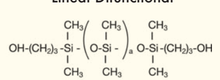
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer OH A0-UP	Lowest-molecular-weight reactive silicone. Contains one reactive group on a heptamethyltrisiloxane backbone. Used as a chain terminator and polymer modifier.	Clear liquid	280	280	20
Silmer OH C50	High-molecular-weight trifunctional silicone pre-polymer.	Clear liquid	11,600	3,800	500
Silmer OH J10	High-molecular-weight multifunctional silicone pre-polymer.	Clear liquid	8,800	880	1,300
Silmer OH Di-10	Linear-difunctional hydroxyl-terminated silicone pre-polymer.	Clear liquid	1,000	500	50
Silmer OH Di-50	Linear-difunctional hydroxyl-terminated silicone pre-polymer.	Clear liquid	4,000	2,000	100

Siltech formulations enhance durability, water resistance, flexibility, and slip in sporting goods, outdoor gear, and marine finishes.

Multi



Linear-Difunctional

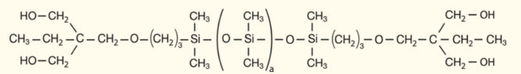


2. Silmer OHT – Dual Hydroxyl-Functional Pre-Polymer

Provides the superb slip, mar and stain resistance of linear silicones but also provide some degree of crosslinking to better anchor the silicone co-polymer into the system.

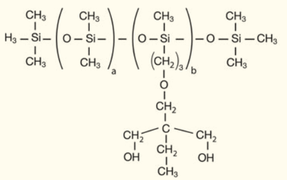
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer OHT A0	Two-functional hydroxyl attached to silicone backbone. Can be reacted into urethane coatings to have a single monofunctional silicone layer incorporated into the coating.	Clear liquid	400	200	100
Silmer OHT Di-10	Tetra-functional hydroxyl silicone. Best organic compatibility.	Clear liquid	1,200	300	200
Silmer OHT Di-50	Tetra-functional hydroxyl silicone. Provides good slip, mar resistance and release.	Clear liquid	3,800	950	300
Silmer OHT Di-100	Tetra-functional hydroxyl silicone. Provides good slip, mar resistance and release.	Clear liquid	7,900	1,975	500
Silmer OHT Di-400	Tetra-functional hydroxyl silicone. Provides best slip, mar resistance and release.	Clear liquid	30,000	7,500	9,500
Silmer OHT E13	Ten-functional hydroxyl silicone. Provides good slip, mar resistance and release and high degree of crosslinking.	Clear liquid	6,100	1,525	1,500

Linear-Difunctional



Textile manufacturers rely on Siltech formulations for smooth, durable handfeel on natural and synthetic fibers.

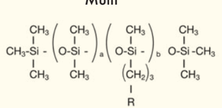
Multi



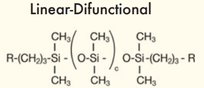
3. Silmer ACR – Acrylate-Functional Pre-Polymer

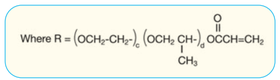
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer ACR D208	Water-soluble multifunctional acrylate silicone pre-polymer.	Clear liquid	3,000	1,200	270
Silmer ACR Di-10	Linear-difunctional acrylate-terminated silicone pre-polymer.	Clear liquid	1,100	550	30
Silmer ACR Di-50	Linear-difunctional acrylate-terminated silicone pre-polymer.	Clear liquid	4,100	2,050	300
Silmer ACR Di-400	Linear-difunctional acrylate-terminated silicone pre-polymer.	Clear liquid	24,100	14,200	2,100
Silmer ACR Di-1508	Linear-difunctional water-insoluble acrylate silicone pre-polymer.	Clear liquid	1,500	750	160
Silmer ACR Di-2510	Linear water-dispersible cross-linkable silicone acrylate pre-polymer.	Clear liquid	2,800	1,400	350
Silmer ACR Di-4515-0	Linear-difunctional water-dispersible acrylate silicone pre-polymer.	Clear liquid	6,600	3,000	2,200

Multi



Linear-Difunctional

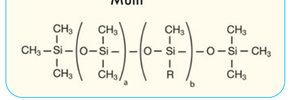




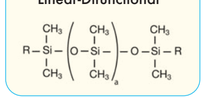
4. Silmer OH ACR – Acrylate-Functional Pre-Polymer with Secondary Hydroxyl Groups

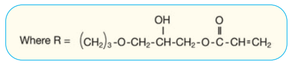
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer OH ACR Di-10	Linear low-molecular-weight silicone acrylate pre-polymer for UV cured systems. More compatible to organics. Fast curing, provides good slip, mar resistance and release.	Clear liquid	1,200	600	120
Silmer OH ACR Di-50	Linear medium-molecular-weight silicone acrylate pre-polymer for UV cured systems. Fast curing, provides good slip, mar resistance and release.	Clear liquid	3,900	1,900	210
Silmer OH ACR Di-100	Linear high-molecular-weight silicone acrylate pre-polymer for UV cured systems. Fast curing, provides good slip, mar resistance and release.	Clear liquid	8,000	4,000	310
Silmer OH ACR Di-400	Linear high-molecular-weight silicone acrylate pre-polymer for UV cured systems. Fast curing, provides best slip, mar resistance and release.	Clear liquid	25,000	6,000	1,500
Silmer OH ACR D4	Multifunctional low-molecular-weight silicone acrylate pre-polymer for UV cured systems. Provides more hardness and brittleness than OH ACR C50 but still flexible.	Clear liquid	2,270	570	645
Silmer OH ACR C50	Multi tri-functional high-molecular-weight silicone acrylate pre-polymer for UV cured systems. Provides for a good flexible esin with slip, mar resistance and release.	Clear liquid	12,000	4,000	1,200

Multi



Linear-Difunctional

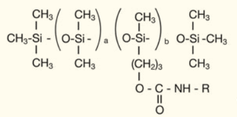




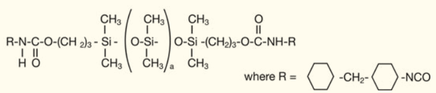
5. Silmer NCO – Isocyanate-Functional Pre-Polymer

Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer NCO C50	High-molecular-weight trifunctional silicone pre-polymer.	Clear liquid	12,400	4,100	1,100
Silmer NCO Di-50	Linear-difunctional isocyanate-terminated silicone pre-polymer.	Clear liquid	4,300	2,150	1,400
Silmer NCO Di-100	Linear-difunctional isocyanate-terminated silicone pre-polymer. Twice the molecular weight of Silmer NCO Di-50.	Clear liquid	8,000	4,000	3,000

Multi



Linear-difunctional

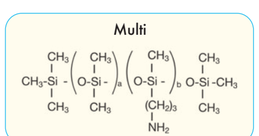


6. Silmer NH – Amino-Functional Pre-Polymer

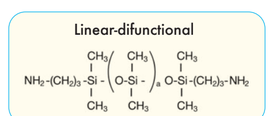
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer NH C50	High-molecular-weight trifunctional silicone pre-polymer.	Clear liquid	11,600	3,800	500
Silmer NH Di-8	Linear-difunctional amino-terminated silicone pre-polymer.	Clear liquid	850	425	12
Silmer NH Di-50	Linear-difunctional amino-terminated silicone pre-polymer.	Clear liquid	3,600	1,800	70

Versatile chemistries, lasting results.

Multi



Linear-difunctional

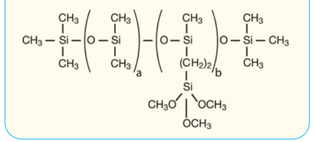


7. Silmer TMS – Trimethoxysilane Pre-Polymer

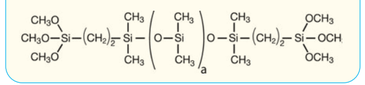
These trimethoxysilane functionalized siloxanes cure by condensation with silanols, organic hydroxyl groups and other alkoxy silane materials. Can be used "as is" for slow cure condensation or used with tin or titanium catalysts for faster cure. Can be reacted with pigments to provide good hydrophobicity.

Products	Properties and Applications	Appearance	Molecular Weight	# of Trimethoxy Silane Groups	Viscosity (cps@25°C)
Silmer TMS C50	Trifunctional polysiloxane with trimethoxysilane groups.	Clear liquid	1,200	3	500
Silmer TMS Di-10	Linear, trimethoxysilane terminated polysiloxane.	Clear liquid	1,100	2	15
Silmer TMS Di-50	Linear, trimethoxysilane terminated polysiloxane.	Clear liquid	3,800	2	60

Multi



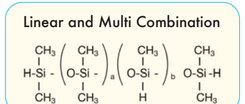
Linear-difunctional



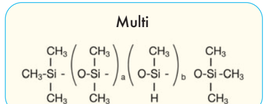
8. Silmer H – Hydride-Functional Pre-Polymer-Silmer H products are all available in low volatile (LV) versions of less than 0.1%

Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer H D2	Multifunctional silicone hydride pre-polymer.	Clear liquid	1,100	270	10
Silmer H E4	Multifunctional silicone hydride pre-polymer.	Clear liquid	2,100	420	25
Silmer H Di-10	Linear-difunctional silicone hydride pre-polymer.	Clear liquid	875	438	10
Silmer H Di-E2	Linear-difunctional and multifunctional silicone hydride pre-polymer.	Clear liquid	1,000	142	10
Silmer H Di-13 LV	Stripped linear di-functional silicone hydride pre-polymer.	Clear liquid	1,000	140	15

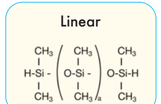
Linear and Multi Combination



Multi



Linear

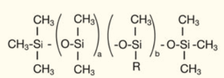


9. Silmer EP – Epoxide-Functional Pre-Polymer

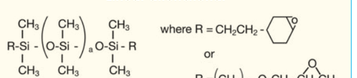
Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer EP C50	High-molecular-weight trifunctional silicone pre-polymer.	Clear liquid	11,800	3,900	500
Silmer EPC C50	High-molecular-weight trifunctional silicone pre-polymer, with a cyclic epoxide.	Clear liquid	11,800	3,900	500
Silmer EP J10	High-molecular-weight multifunctional silicone pre-polymer.	Clear liquid	9,300	930	900
Silmer EP Di-50	Linear-difunctional epoxide-terminated silicone pre-polymer.	Clear liquid	4,100	2,050	70
Silmer EP Di-100	Linear-difunctional epoxide-terminated silicone pre-polymer. Twice the molecular weight of Silmer EP Di-50.	Clear liquid	7,800	3,900	160
Silmer EPC Di-50	Linear-difunctional silicone pre-polymer terminated with a cyclic epoxide.	Clear liquid	4,100	2,050	85
Silmer EP D208	Water-dispersible glycidyl-based reactive silicone epoxy pre-polymer. Often improves compatibility in non-aqueous formulations.	Clear liquid	2,400	2,400	300
Silmer EPC F418-F	Water-dispersible multifunctional cycloaliphatic-based reactive silicone epoxy pre-polymer. Often improves compatibility in non-aqueous formulations.	Clear liquid	8,200	8,200	900

SILTECH Innovative silicone solutions

Multi



Linear-difunctional

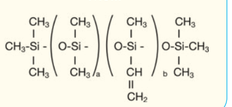


10. Silmer VIN – Vinyl-Functional Pre-Polymer

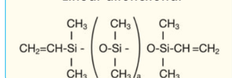
Products	Properties and Applications	Appearance	% Vinyl	Vinyl Meq.	Viscosity (cps@25°C)
Silmer VIN C50	High-molecular-weight trifunctional silicone pre-polymer.	Clear liquid	0.701	0.260	250
Silmer VIN J10	High-molecular-weight multifunctional silicone pre-polymer.	Clear liquid	3.190	1.182	170
Silmer VIN 70	Linear-difunctional vinyl-terminated silicone pre-polymers with viscosities ranging from 70 to 65,000 cps. Please refer to Silmer H cross-linkers for hydride silicones as part of our silicone line.	Clear liquid	1.390	0.514	70
Silmer VIN 100		Clear liquid	0.882	0.327	100
Silmer VIN 200		Clear liquid	0.500	0.185	200
Silmer VIN 1,000		Clear liquid	0.311	0.115	1,000
Silmer VIN 5,000		Clear liquid	0.115	0.0426	5,000
Silmer VIN 10,000		Clear liquid	0.100	0.0370	10,000
Silmer VIN 20,000		Clear liquid	0.080	0.0296	20,000
Silmer VIN 65,000		Clear liquid	0.050	0.0185	65,000

Global formulators choose Siltech chemistry consistent performance, ease of use, and multi-functional benefits in commercial product lines.

Multi



Linear-difunctional



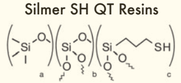
11. Silmer SH

Thiol functional, highly cross-linked silicon materials that offer a unique site for reactions. Used to undergo the mercapto-ene reaction in UV-cured 3D printed systems to give high elongation values not normally obtainable with UV-cured chemistry. These materials have barely any volatility or characteristic odour due to the cross-link density.

Products	Properties and Applications	Appearance	Molecular Weight	Viscosity (cps@25°C)
Silmer SH JO	Highly functional mercapto silicone designed to be the thiol component in a UV cured thiol-ene reaction based resin system. We have reacted this with Silmer VQ resins, such as Silmer VQ92, and linear extenders such as Silmer VIN 65,000.	Clear to slightly hazy liquid	2,500	400
Silmer SH Q20	Silicon thiol resin with very high cross-link density. Contains no dimethyl silicone groups to maximize the hardness of the materials cured from it.	Clear to slightly hazy liquid	2,500	15,000
Silmer SH 208-30Q	Silicon thiol resin with very high cross-link density. Contains no dimethyl silicone groups to maximize the hardness of the materials cured from it.	Clear to slightly hazy liquid	2,500	3,000

Siltech's functional silicones are key additives in lubricants, polishes, and cleaning agents where slip, shine, and surface conditioning are needed.

Silmer SH QT Resins



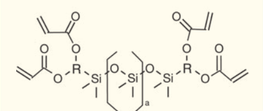
12. Silmer ACRN and ACRT

Tetra-acrylate functional silicone materials provide a high degree of cross-linking in UV cured systems such as paper release.

Products	Properties and Applications	Appearance	Molecular Weight	Equivalent Weight	Viscosity (cps@25°C)
Silmer ACRN Di-100	Tetra functional silicone acrylate pre-polymer. An additive in energy cured coatings systems or to modify acrylate polymers improving the surface and physical properties. Highest-molecular-weight version gives extension with least cross-linking.	Clear amber liquid	7,880	1,970	850
Silmer ACRT Di-5	Lowest-molecular-weight version is ideal for 3D printing and other low-viscosity systems.	Clear to hazy liquid	720	180	40
Silmer ACRT Di-10	Low-molecular-weight version suitable for providing high cross-link density.	Clear to hazy liquid	1,440	360	100
Silmer ACRT Di-25	Medium-molecular-weight version provides good balance of cross-link and extension.	Clear to hazy liquid	2,550	1,110	360
Silmer ACRT Di-100	Tetra functional silicone acrylate pre-polymer. An additive in energy cured coatings systems or to modify acrylate polymers improving the surface and physical properties. Highest-molecular-weight version gives extension with least cross-linking.	Clear to hazy liquid	8,000	2,000	580

Enhances print quality, scratch resistance, and surface smoothness.

Silmer ACRT and ACRN



Silicone Two Part Elastomers

Silmer G-100 series.

Siltech offers a number of two-part, optically clear silicone gels that can be used for pressure-sensitive adhesives, encapsulation, dampeners and many other applications.

The Silmer G-100 products are a series of two-part, optically clear, addition cured silicone gel systems that range from soft, tacky gels to hard rubbers. They can be used over a wide range of temperatures and offer chemical and electrical resistance with various mechanical properties. They are particularly useful in dental impressions, electronic encapsulants and dampeners, photonic, aerospace and under-the-hood applications.

Silmer G-100 Series. Typical Cured Properties, @ 100°C for 1 hour

Products	Viscosity (cps@25°C) before curing	Appearance after curing	Hardness (Shore A)	Penetration	Elongation at Break (%)	Tack (gm)	Rebound
Silmer G-100	1,800	Clear, soft gel	0	>15	617	220	Yes
Silmer G-102	350	Clear, very soft gel	0	>15	>700	175	Yes
Silmer G-104	700	Clear, hard dough	0	2	>1,700	380	No
Silmer G-106	8,000	Clear, tough rubber	11	>1	274	NIL	No

Your Technology, Our Chemistry

Formulators value Siltech's surface-modifying additives for their ability to improve slip, levelling, and chemical resistance in water and solvent-based systems.

Defoamers and Antifoams

Silicones are widely used as defoamers and antifoams in pulp and paper, paints and coatings, water treatment and other industrial applications. Siltech offers a range of defoamers, which include basic emulsions of hydrophobized silica. Siltech also offers specialized silicone polyethers that are effective defoamers in the following industries: paints and coatings, pulp and paper, metalworking fluids and any other area where paintability is important.

Products	Properties and Applications
Siltech 5800 Siltech 5821	Water-dispersible silicone polyether reacted with silica. Excellent defoamers for metal working fluids, pulp and paper, paints, coatings and other applications where dyeing and paintability are important. Prevents entrained foam. Product is cold water rinsable and will not leave deposits. Siltech 5821 is 75% active.
Siltech 2200	Industrial-grade antifoam with added MQ resin to boost defoaming capabilities.100% active. Can also be used as is or preferably diluted in a suitable carrier for non-aqueous systems.
Siltech E-2210 Siltech E-2211 Siltech E-2220 Siltech E-2221 Siltech E-2230 Siltech E-2231	Industrial-grade antifoam emulsions. Used in aqueous systems. 10%, 20% and 30% active.
Siltech 2300	Industrial-grade antifoam with added MQ resin to boost defoaming capabilities.100% active. Can also be used as is or preferably diluted in a suitable carrier for non-aqueous systems.
Siltech PA-140	Emulsifiable antifoam concentrate for use in brownstock washing for kraft and sulfite processes.100% active.
Siltech P-982	100% active, emulsifiable pulp antifoam compound base. It is designed as a foam control agent in brown stock washing for kraft and sulfide processes.
Siltech C-4700	Water-insoluble silicone polyether copolymer with hydrophobized silica. Designed to control foam without defects in waterborne and solvent based paints and coatings.
Siltech C-4760	Emulsion of silicone polyether copolymers and hydrophobized silica. Designed to control foam without defects in waterborne paints and coatings. Emulsified with nonionic emulsifiers and can be used as is or at diluted concentrations.
Siltech C-4800	Fully formulated industrial-grade antifoam. Easily dispersed, durable foam control. 65% active.
Siltech C-4830	Defoamer and antifoam for use in water-based coating and ink applications as well as in various water-based industrial formulations. 40% active.
Siltech C-4852	High-efficiency, high-durability antifoam compound.

Emulsions

Often, it is highly desirable to use silicone fluids in dilute form. To be used as such, the silicone compounds must be emulsified. Siltech's line of emulsions exhibits a wide variety of uses, including mold release, polish for tires and furniture, and lubrication and conditioning for personal care applications.

Products	Properties and Applications
Siltech E-600	35% active emulsion of Siltech F-60,000.
Siltech E-660	60% active emulsion of high and low-viscosity silicone fluids.
Siltech E-2140	Emulsion of Siltech F-350. Effective mold release compound. Also used to give glossy finish to tires and vinyl and as a furniture polish. 60% active.
Siltech E-2145 Siltech E-2145-35	Emulsion of an amino-functional polydimethylsiloxane. Excellent lubricant and softener for use in textiles. Non-yellowing. Good mold release for metal applications. Also gives a durable gloss to tires, vinyl and furniture polishes. More durable than Siltech E-2140. 60% active. Siltech E-2145 is 60% active and Siltech E-2145-35 is 35% active.
Siltech E-2145HG	60% active emulsion of reactive silicones. Provides best durability and gloss to tires and vinyl.
Siltech E-2150	30% active emulsion of a cross-linked high-molecular-weight silicone amine.
Siltech E-2152	50% active emulsion of a cross-linked alkyl siloxane that will form a dry siloxane film on dry down. Excellent durability and softness to textiles, leather and other substrates.
Siltech E-2155	30% active emulsion of a medium viscosity cross-linking amino silicone that forms a durable finish on dry down. Excellent durability and shine to tires, furniture polishes and hard surface cleaners.
Siltech E-2178	35% active emulsion used to provide hydrophobicity to a wide variety of substrates, including cementitious surfaces.
Siltech E-3H60	60% active emulsion of a highly reactive silicone hydride pre-polymer.
Siltech E-3132	Emulsion of a stripped alkyl aryl silicone. Excellent mold release for plastics, rubber, and die cast metal parts where paintability is important. 50% active.
Siltech E-4135	Micro-emulsion of an amino-functional polydimethylsiloxane.
Siltech E-4080	60% active emulsion of a silicone resin.
Siltech E-5050	30% active emulsion of a high-molecular-weight silicone urethane resin. Used as an additive to improve water repellence, soil resistance, slip, mar resistance and softness to coated materials.
Siltech E-8010	10% active. Cross-links into a durable finish. Provides excellent durability, shine, water repellency, and release.
Siltech E-8050	50% active. Cross-links into a durable finish. Provides excellent durability, shine, water repellency, and release.
Siltech C-4775	80% active dispersion of a very-high-molecular-weight polydimethylsiloxane. Very effective additive for both water-based and solvent-based coating systems providing excellent softness to leather and slip, mar resistance, gloss, antiblocking and release to coatings and low volitaile content
Siltech E-4437	100% active. Similar to Siltech C-4405, but does not contain any tin-based catalysts.
Siltech C-4445	80% active. Similar to Siltech C-4405, but does not contain any tin-based catalysts.

Siltech Patents

Number	U.S. Patent	Date Issued	Topic
1	4,868,236	Sept/89	Guerbet Citrate Esters
2	5,051,489	Sept/91	Silanol Waxes
3	5,070,168	Dec/91	Ether Amine Functional Silicone Polymers
4	5,070,171	Dec/91	Phosphated Silicone Polymers
5	5,073,619	Dec/91	Silicone Amphoterics
6	5,091,493	Feb/92	Silicone Phosphobetaines
7	5,098,979	Mar/92	Silicone Quats
8	5,115,049	May/92	Silicone Amine Salts
9	5,120,812	June/92	Free-Radical Silicone Monomers
10	5,136,063	Aug/92	Silicone Waxes
11	5,149,765	Sept/92	Terminal Silicone Phosphates
12	5,153,294	Oct/92	Silicone Quats
13	5,162,472	Nov/92	Silicone Free-Radical Polymers
14	5,164,471	Nov/92	Fluorine Silicone Waxes
15	5,166,297	Nov/92	Silicone Quat Intermediates
16	5,180,843	Jan/93	Silicone Esters
17	5,196,499	Feb/93	Terminal Silicone Quats
18	5,378,787	Jan/95	Silicone Amines
19	5,446,114	Aug/95	Fluorinated Dimethicone Copolyols
20	6,346,595	Feb/02	Aromatic Dimethicone Copolyol Polymers as Sun Screen Agents
21	6,841,649	Jan/05	Fluoro Alkyl Dimethicone Esters
22	7,407,666	Aug/08	Linear Silicone Resins in Personal Care Applications
23	7,632,488	Dec/09	Cross-linked Silicone Polymers
24	7,718,750	May/10	Multi Alkoxylated Silicone Surfactants
25	7,723,443	May/10	Multifunctional Linear Silicone Resin Polymers
26	7,786,241	Aug/10	Polyester Silicone Resins
27	7,790,813	Sept/10	Multifunctional Silicone Resin Polymers
28	7,811,976	Oct/10	Dimer Alkyl Silicone Polymers
29	7,834,116	Nov/10	Fluoro Silicone Acrylates and Polymers Thereof
30	7,875,263	Jan/11	Polymeric Structured Gels
31	7,951,893	May/11	Star Silicone Polymers
32	7,956,152	Jun/11	Star Silicone Polymers
33	8,025,870	Sep/11	Vinyl Ether Silicone Polymers
34	8,124,062	Feb/12	Dimer Alkyl Silicone Polymers in Personal Care Applications
35	8,148,483	Apr/12	Fluoro Silicone Acrylates and Polymers Thereof
36	8,153,106	Apr/12	Silicone Based Sun Screening Compositions with Improved UVA1/UV Ratios
37	8,263,061	Sep/12	Alkyl Quaternary Silicone Compounds
38	9,497,962	Nov/16	Hydroalcoholic Foaming Sanitizer
39	10,336,766	Jul/19	Invert Emulsions made with Non-PEG Containing Silicone Based Polyhydric Emulsifiers

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