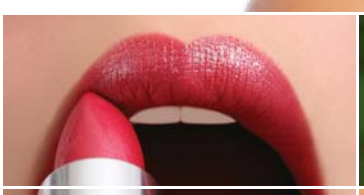
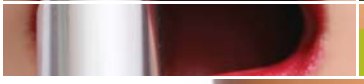
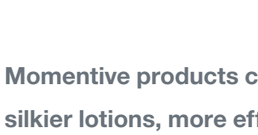
MOMENTIVE™

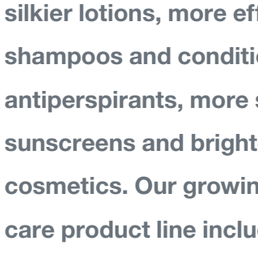
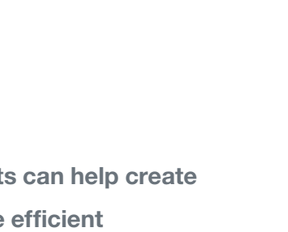
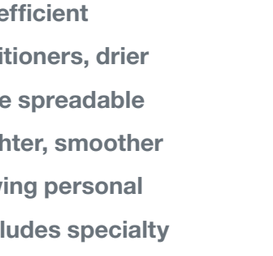
Silicone Specialties for Personal Care





Momentive products can help create silkier lotions, more efficient shampoos and conditioners, drier antiperspirants, more spreadable sunscreens and brighter, smoother cosmetics. Our growing personal care product line includes specialty fluids, copolymers, blends, gels, film formers, micropowders, emulsions and dispersions. Our highly effective formula for client relationships includes: superb products, enthusiastic technical support and application development assistance, based on more than 70 years of silicone expertise. Globally, we can help customers create breakthroughs, reduce costs and achieve their business goals.



Core Competencies and Differentiated Technologies for Personal Care

Sensory Enhancement

Softening and Conditioning

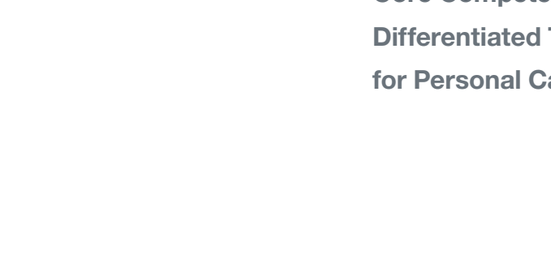
Surface Modification

Consistent Spreading

Collaborating to Advance Innovation

At Momentive, we have a number of core competencies that can allow us to deliver consumer-perceivable benefits and support key marketing claims for personal care products. These include:

- Sensory enhancement to provide the “WOW” feel to finished formulations
- Softening and conditioning to give hair that silky, soft feel and healthy look
- Surface modification to impart transfer resistance, long wear with comfort, shine and protection
- Consistent spreading and wetting to improve dispersion of pigments and spreading of active ingredients and organic oils



Vibrant

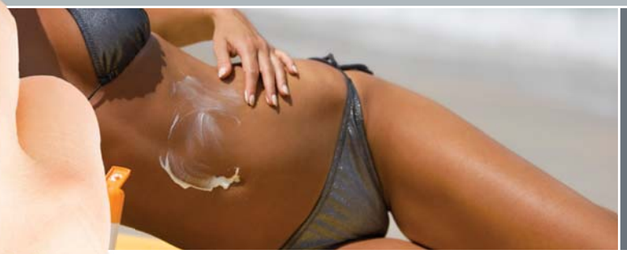
Sense

Touching is Believing

There is a silky softness offered by our specialty silicones that can be hard to achieve using other materials. In makeup, creams, lotions, shampoos, conditioners and styling products, we put the “WOW” right there on your fingertips. It may put an end to tacky formulations that can take forever to smooth and dry. Our specialty silicones typically work quickly, for a softness all our own.





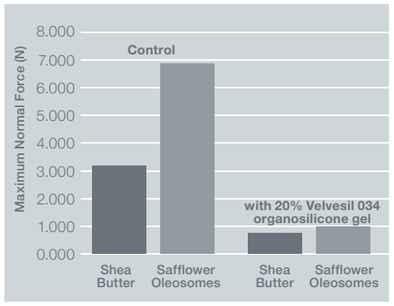
Overview: Velvesil* Crosspolymer Network

Velvesil organo-silicone gels are based on a patented and unique silicone crosspolymer network that can deliver outstanding sensory benefits in most types of skin care and color formulations.

Velvesil 034 Organosilicone

Velvesil 034 organosilicone gel is an excellent candidate to consider to help disperse and spread cosmetic ingredients without tackiness. It can help spread inorganic pigments, deliver brighter and more uniform color in makeup formulations and provide more uniform coverage in sunscreens. It has excellent compatibility with many organic materials, enhancing the sensory benefit and stability of a wide range of personal care products.

Tack Reduction of Natural Ingredients



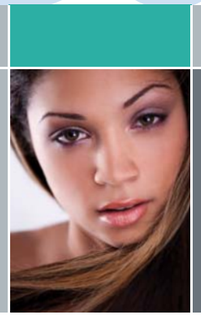
Velvesil DM Silicone

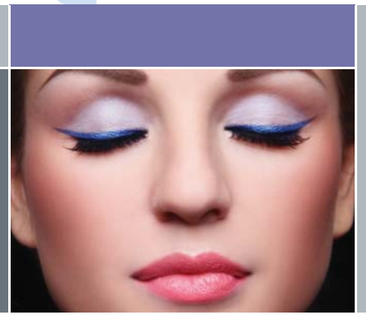
Velvesil DM silicone can promote easier spreading on the skin, leaving an exquisite, long-lasting, moisturizing and silky feel and enhanced sensory qualities for skin care products and color cosmetics. This patented multifunctional silicone copolymer network is non-emulsifying, dispersed in dimethicone, and formed in a creamy, transparent gel. It exhibits shear-thinning behavior, typically allowing smoother, more consistent spreading of anti-aging, sunscreen and moisturizer products.

Velvesil Plus Emulsifiable Gel

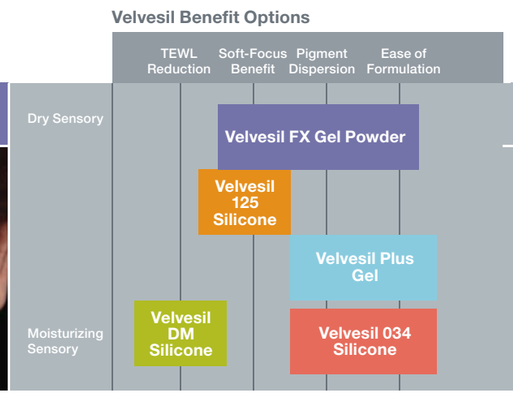
Velvesil Plus emulsifiable gel readily offers excellent compatibility with many organic materials, including highly polar organics, as well as hydrophilic and silicone components. Its powdery, silky skin feel may enhance the sensory performance of a wide range of personal care products. Easily processed at low temperatures and low shear, it may help reduce manufacturing time and expense. This versatile product is an excellent candidate to consider for formulations, from low viscosity, sprayable emulsions to highly structured anhydrous gels, all with a soft, elegant, powdery feel.

Soft



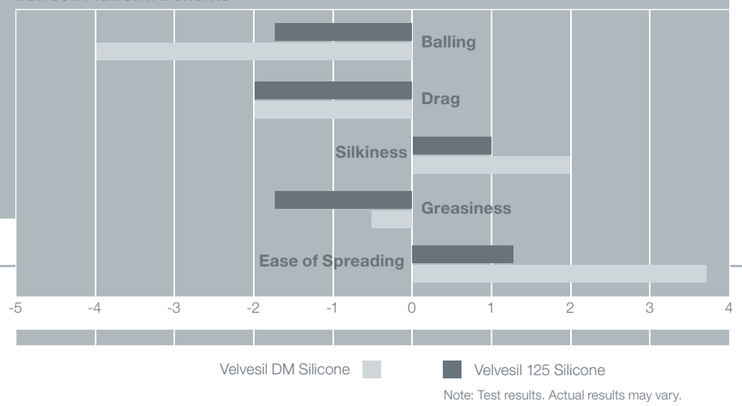


Velvesil Benefit Options



Each Velvesil material offers a distinct sensory with functionality. The choice depends upon the finished formulation requirements.

Velvesil Platform Benefits



Note: Test results. Actual results may vary.

Velvesil* FX Gel Powder

Velvesil FX gel powder can enhance natural-look coverage with a delightful sensory phenomenon. It combines the translucent soft-focus ability of boron nitride with the powdery velvet touch of our patented Velvesil chemistry. Adding a trisiloxane typically improves the dispersion of boron nitride within the gel matrix, for a more natural, smoother appearance on skin. This patent-pending combination may stimulate the senses while it helps blur fine lines and wrinkles.

Velvesil 125 Silicone

Velvesil 125 silicone crosspolymer network is our patented multifunctional sensory enhancer. It offers an exceptional feel during rub-in because of its unique particle size distribution, and it offers a silky and powdery afterfeel. Its polymerization chemistry differs from the traditional “silicone structurants.” It typically provides soft focus and visual effects and gives skin a fresh new feel. Velvesil 125 silicone crosspolymer network is an excellent candidate to consider for a multitude of formulation applications. Formulators have found it to be an efficient thickener of silicone and organic ingredients, with excellent compatibility. It can be used as a stabilizer/thickener for W/O and O/W emulsions.

Silsoft* Silicone Gel

Silsoft Silicone gel is a crosslinked, high molecular weight silicone network that spreads evenly and quickly for a silky, cushioning feel. It offers significantly reduced balling effect normally associated with elastomer gels. The addition of crystal clear Silsoft Silicone gel can improve the sensory aesthetics of formulations when organic oils or sunscreens cause tackiness. Silsoft Silicone gel can be added easily into the oil phase of a formulation and can withstand heat and high shear, generally without the need for post homogenization.

Overview: Tospearl* Microspheres

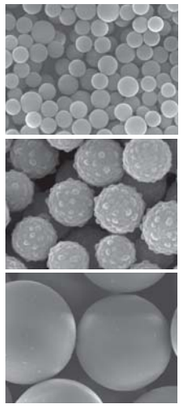
Tospearl microspheres can impart a luxurious and lubricious feel to a variety of creams, lotions and color cosmetics. This series is comprised of mono-dispersed, micro-fine spherical crosslinked siloxane particles. Each grade has a specific particle size to deliver precise qualities and can typically reduce pressed-powder agglomeration. Tospearl microspheres can improve the spreadability of creams and enhance soft focus effects, to help minimize fine lines and wrinkles.

Tospearl AQ Microspheres

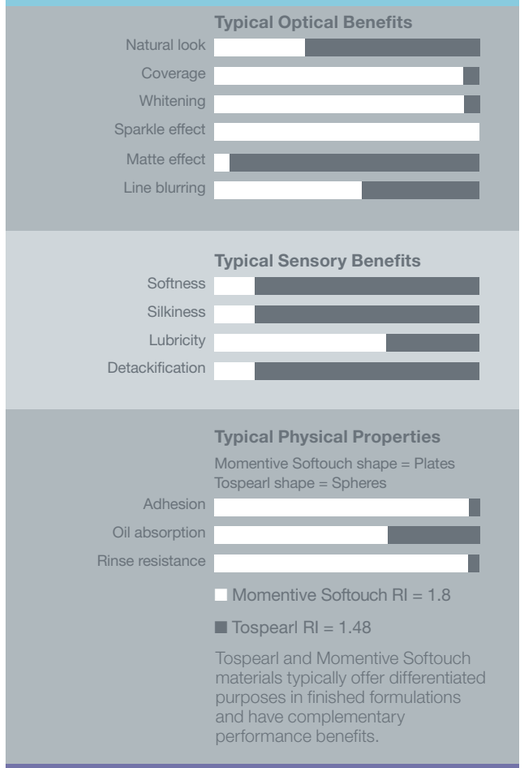
Tospearl AQ microspheres are silicone spheres coated with a hydrophilic cationic polymer. These microspheres can be incorporated easily into oil-in-water emulsions to help provide a smooth and silky sensory experience. In addition, Tospearl AQ microspheres can help create formulas that enhance the blurring of fine lines and wrinkles and improve rub-in of skin care formulations.

Variety in Size and Shape

Tospearl microspheres are typically available in a wide variety of sizes and a unique shape. Their very tightly controlled particle size distribution is one of the keys to their performance benefits.



Tospearl* and Momentive Softouch* Comparative Benefits



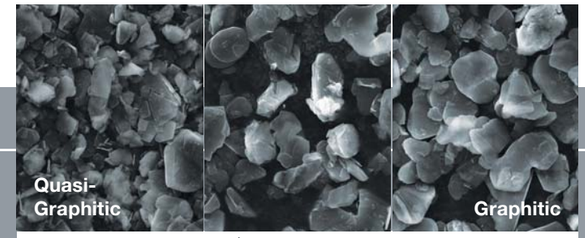
Silsoft* E-Pearl Emulsion

Silsoft E-Pearl emulsion is uniquely versatile and multifunctional, and an excellent candidate to consider for addition to the water phase of a variety of personal care products, from facial masks to body washes and sun care products. Consumers typically experience a rich sensory feel while benefiting from line blurring and skin lightening. It is a patent-pending, non-ionic emulsion of polymethylsilsesquioxane powder, high molecular weight dimethicone and an alkyl-functionalized polysiloxane. It is very easy to use in formulations and may even be post-added to existing ones. You may achieve unique sensory qualities in skin care products with high water content, even more than 90% water.

Momentive Softouch Boron Nitride (BN) Powder

Momentive Softouch BN powder can create a wide range of tactile and optical effects, including a unique, silky, luxurious feel in color cosmetic and skin care products, with improved adhesion and wear. Testing demonstrated that Momentive Softouch BN powder could significantly enhance many cosmetic products with soft-focus properties and non-transfer characteristics—the result of its layered, hexagonal-crystal structure.

Momentive Softouch Boron Nitride: Soft Focus to Lubricious



Momentive Softouch boron nitride powders are available in an array of crystal morphologies for formulation flexibility.

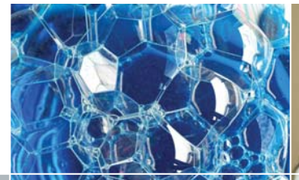
Note: Test results. Actual results may vary.

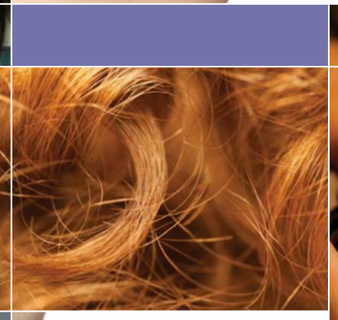
Luxe

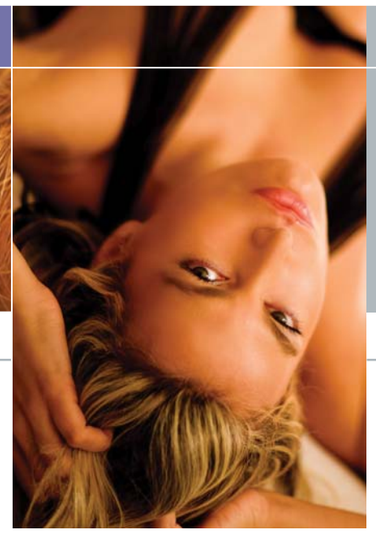
Touch

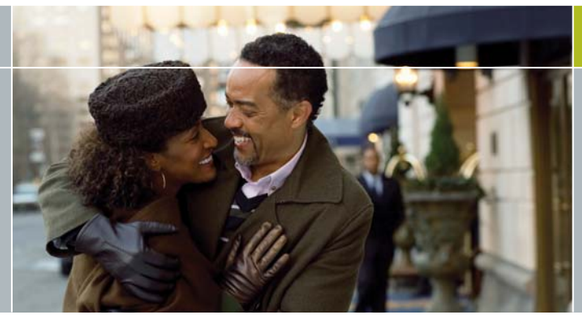
Feel the Difference

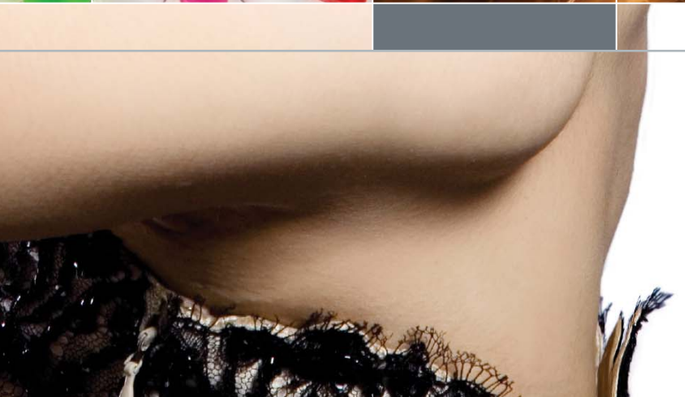
Healthy hair should be soft, full and shiny, not heavy or greasy. Traditional silicones offer great conditioning, but lack the multifunctionality of our specialty materials. Our growing portfolio of $[AB]_n$ amino copolymers soften each strand, like a softener on silk, so hair is easier to comb, wet or dry. Our amino “quats” cover every hair shaft with a protective, conditioning film, trapping moisture within, for longer lasting softness and manageability. Create a touchable feel and a thrilling shine that makes your consumers take notice.









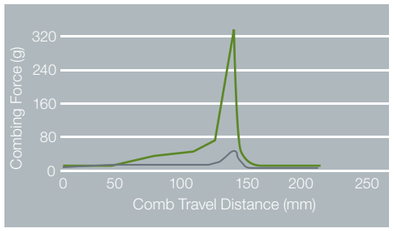


Silsoft* Q PF Quaternary Silicone

Silsoft Q PF quat silicone is a 20% active microemulsion of a proprietary silicone quat that can help deliver volume and amazing softness, as well as conditioning, to fine hair. The unique phase behavior of the silicone quat with water relates to the lubricity of Silsoft Q PF quat silicone during wet combing and its exceptional softening performance benefits. Silsoft Q PF quat silicone is an excellent ingredient to consider for shampoos, conditioners and pre-treatment products aimed at providing volume and softness to fine hair.

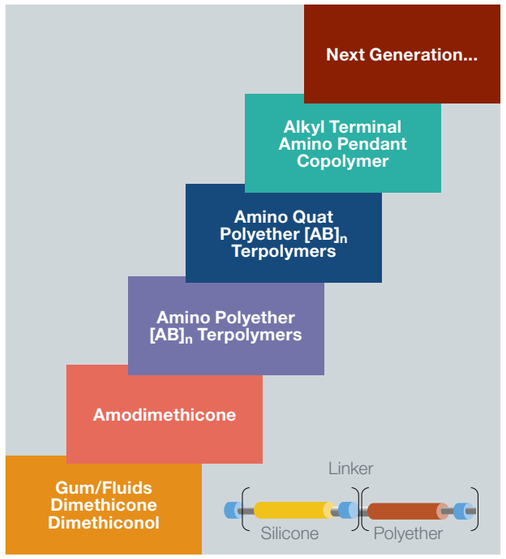
Silsoft Q PF quat silicone can significantly reduce peak combing force.

Reduction in Peak Combing Force



Amino Silsoft Q PF silicone

Conditioning for Hair Care



Hair softening and conditioning: the history of platform innovation and differentiated technologies for consumer needs, by Momentive.

Note: Test results. Actual results may vary.

How Does It Work?

Silicone film on hair fiber

Key properties
- Substantive; hydrophobic
- Continuous film
- Low thermal conductivity

Typical function
- Rinse-resistance
- Lower rate of water loss
- Even distribution of heat
- Modulated rate of temperature increase

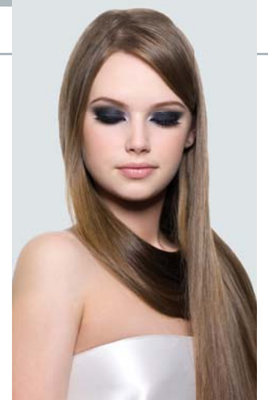
Potential end benefits
- Smooth; soft feel
- Moisturized hair
- No localized damage
- Less damage to cortex
- Hair is less brittle

Silicone droplets on hair fiber

Key properties
- Substantive; small size droplets

Typical function
- Rinse-resistance
- Penetration under uplifted cuticles
- Slowed water loss from hair
- Heat-sink and hydrogen bonding

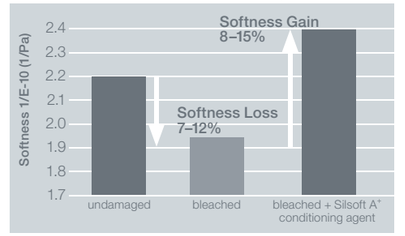
Potential end benefits
- Smooth; soft feel
- Good physical condition



Silsoft* A⁺ Conditioning Agent

Silsoft A⁺ conditioning agent can help provide excellent conditioning to damaged hair. It is a surfactant-free emulsion of an amino $[AB]_n$ multiblock copolymer silicone with an optimal hydrophilic/hydrophobic balance. Compared to traditional amino silicones, Silsoft A⁺ conditioning agent typically has enhanced deposition onto damaged hair, therefore offering better performance at the same actives levels, with potential cost-saving benefits.

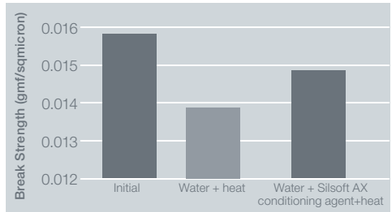
Silsoft A⁺ Conditioning Agent Moisturization Benefit for Damaged Hair



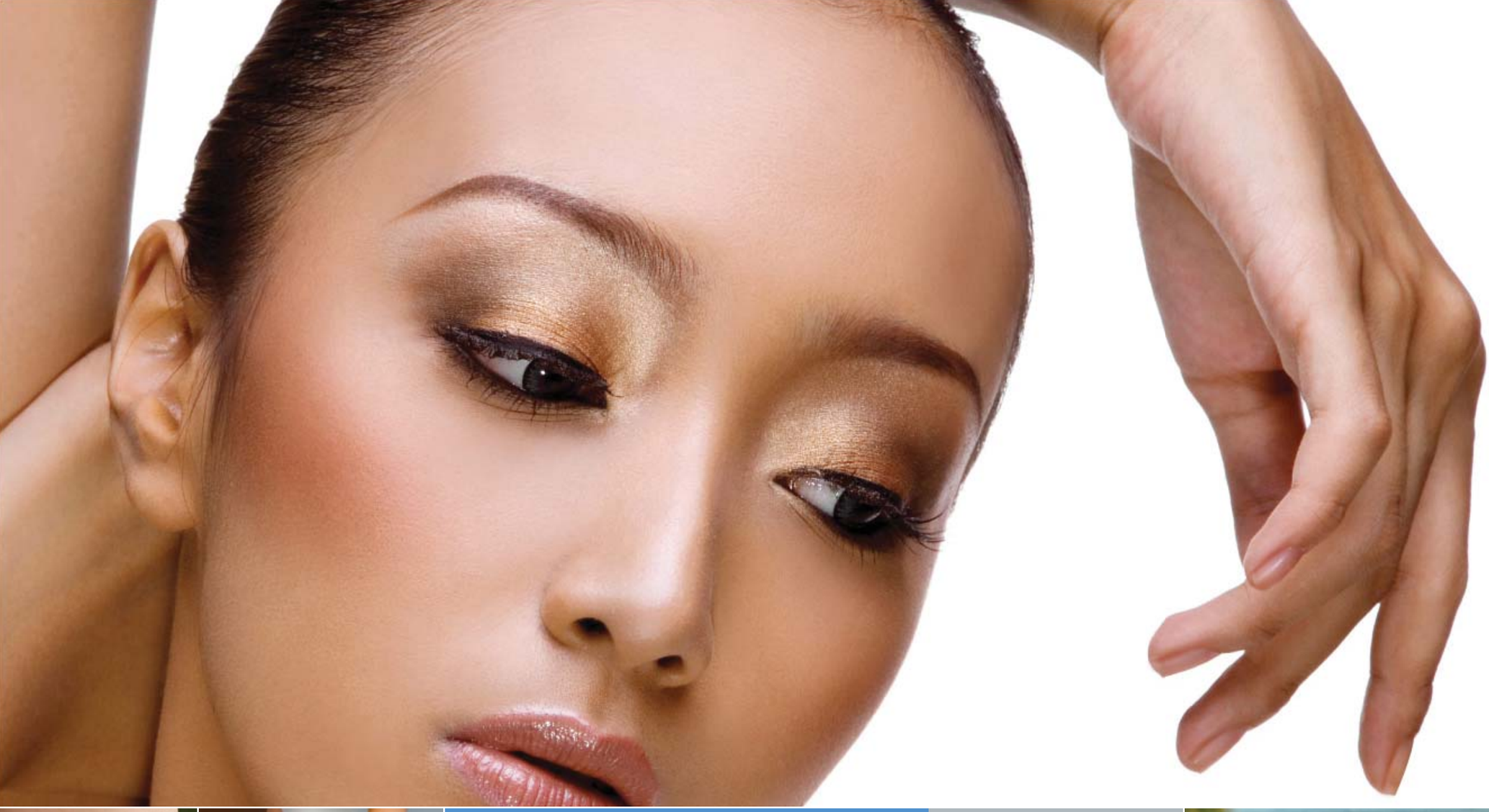
Silsoft AX Conditioning Agent

Silsoft AX conditioning agent is an alkyl modified amino fluid that can help formulas deliver superior smoothness and shine, even when hair dries. The combination of both pendant amino and terminal alkyl groups on the silicone structure helps provide enhanced smoothness, softness and manageability, with thermal protection.

Silsoft AX Conditioning Agent: Thermal Protection



Shine



Stay Flexible

Sometimes beauty is just on the surface: by forming a film on skin or hair, you can formulate personal care products with real staying power—and less transfer. Our specialty silicones can also enhance the sensory qualities of the film. Now you can enjoy long lasting wear, with comfort. You can use a film former as a surface modifier to improve water resistance and boost the performance of sunscreens.

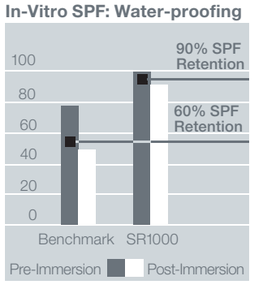
Enhance

SilForm* Flexible resin and SR1000 can provide improved wet rub-off to mascaras, and non-transfer capabilities when added to lipsticks and skin care products.

Keep Curl; Less Frizz

Silsoft Style silicone can reduce frizz caused by high humidity and can help maintain curl memory.

In-Vitro SPF: Water-proofing



The addition of SR1000 can boost SPF values and water resistance.

Silsoft* Style Silicone

Silsoft Style silicone can give hair long lasting, well-defined curls with a flexible natural feel in high humidity situations. An anionic film-forming emulsion of silica crosslinked polydimethylsiloxane, blended with a trisiloxane, it typically spreads rapidly with low tack and dries quickly.

SR1000

SR1000 is a silicone MQ resin that has demonstrated post-immersion in-vitro SPF retention ranging from 50% to 90%. SR1000 offers adhesion to skin, reduced product wash-off and provides long lasting benefits.

SilForm* Flexible Resin

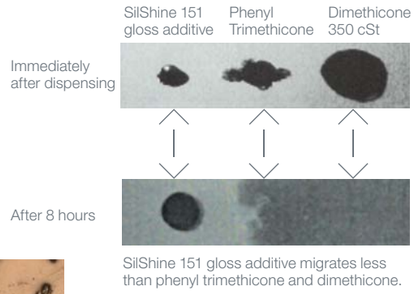
SilForm Flexible resin can give the unusual combination of comfort and long-lasting wearability in personal care formulations. SilForm Flexible resin is a film-forming silicone MT resin that mimics the movement of skin, for a comfortable, non-tight feel. It can offer the non-transfer properties that are typically associated with silicone resins and that are especially beneficial for color cosmetics and sun protection formulations. SilForm Flexible resin can also help improve the comfort of traditional MQ resins, without significantly impacting their excellent transfer resistance.

Silsoft SurFace PF Film Former

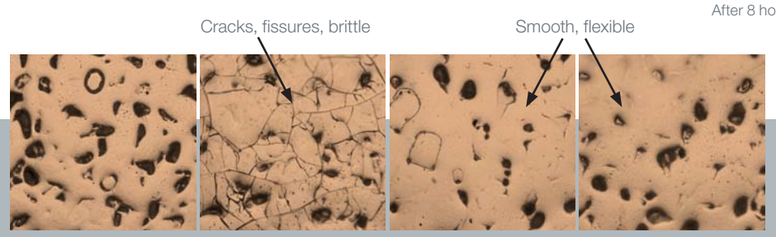
Silsoft SurFace PF organosilicone is a proprietary film-forming emulsion combining non-transfer capabilities with excellent feel and water resistance. It can improve wearability in foundation, mascara and lipstick. Based on an acrylated silicone copolymer that is emulsion-polymerized, it can produce a stable silicone-in-water emulsion with a highly crosslinked silicone matrix. When dry, the emulsion typically leaves a continuous silicone film that is an effective transfer barrier.

SilShine* 151 Gloss Additive

SilShine 151 gloss additive is a silicone film former that can bring visually perceivable high shine to lips and hair. It offers high-refractive index, non-volatility, non-migration and organic compatibility. Its silicone resin structure typically yields excellent film-forming properties. Its phenyl functionality is compatible with most organic emollients, without sacrificing compatibility with silicones.



SilShine 151 gloss additive migrates less than phenyl trimethicone and dimethicone.



Note: Test results. Actual results may vary.

Lasting

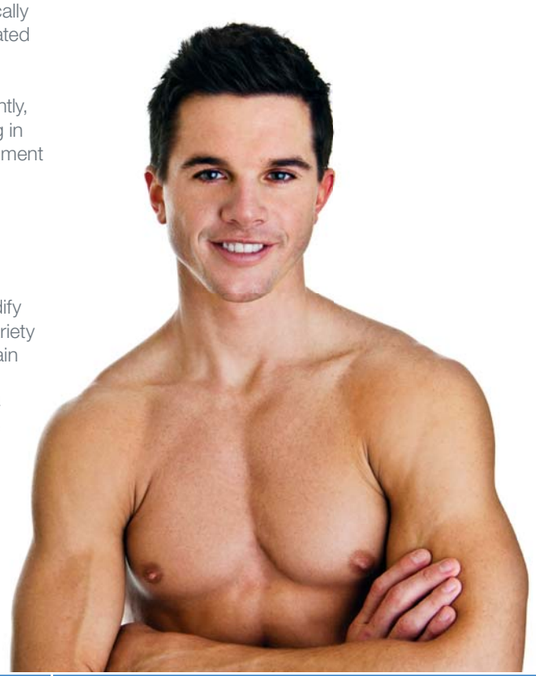
Flow

Be Flawless

Flawless. That's the look. How do you make sure a pigment spreads evenly in a foundation? Reduce surface tension, so active ingredients can spread rapidly on the skin or down each individual hair. Choose from a wide range of dimethicone copolyols, alkyl trisiloxanes and organomodified siloxane copolymers to deliver the benefits you seek within different phases. Their multi-functionality can help you reduce production time and enhance product application properties.

Overview: Silsoft* Dimethicone Copolyols

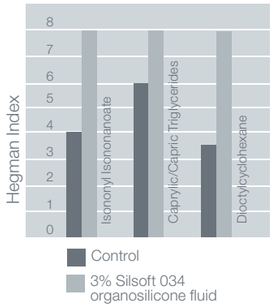
Silsoft dimethicone copolyols are multifunctional, surface-tension-reducing molecules. The dimethicone portion can deliver excellent conditioning and gloss in hair care products and remarkable sensory qualities in skin care formulations. The polyether component typically results in emulsification properties, differentiated solubility and compatibility, plus ease of use during processing. By modifying these two portions of the molecular structure independently, a range of materials can be created, resulting in diverse foaming, solubility, emulsification, pigment dispersion and wetting benefits.



Silsoft 034 Organosilicone Fluid

Silsoft 034 organosilicone fluid can help modify the feel and improve the spreadability of a variety of cosmetic oils. Now formulations that contain vegetable oils, cosmetic esters, petrolatum or mineral oil can feel less greasy. Silsoft 034 organosilicone fluid is an excellent candidate to consider for skin care products, providing a silky afterfeel. It can allow oil to spread more effectively throughout the formulation, so lotions and creams require less rub-in time. In color cosmetic formulations, Silsoft 034 organosilicone fluid can offer a silky afterfeel and can significantly improve the dispersibility of inorganic pigments in formulations that contain organic oils.

TiO_2 Dispersibility in Various Carriers



Silsoft 034 organosilicone fluid can help boost SPF values by spreading active ingredients evenly and quickly.

Smooth

The addition of a Silsoft dimethicone copolyol to a formulation can improve spreading for an easier, smoother application of personal care products.

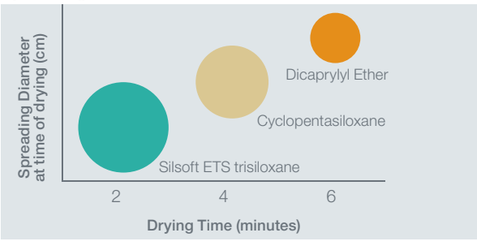
Silsoft* ETS Trisiloxane

Silsoft ETS trisiloxane is a highly volatile linear siloxane that provides an outstanding sensory experience. It spreads easily and rapidly and feels dry and light upon application. Silsoft ETS trisiloxane, as a multifunctional raw material, can help build personal care products that provide highly valued sensory benefits.

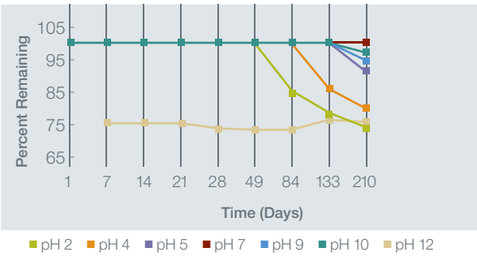
Silsoft Spread SEL and Silsoft Spread TT Fluids

Silsoft Spread SEL fluid is a non-ionic organomodified siloxane copolymer and Silsoft Spread TT fluid is a non-ionic organomodified silane copolymer. These products can reduce the surface tension of personal care formulations, providing the superspreading of actives and inorganic pigments on skin and hair. Silsoft Spread SEL fluid is typically stable in the aqueous phase from pH 6 to pH 11, while Silsoft Spread TT fluid is typically stable in the aqueous phase from pH 2 to pH 12.

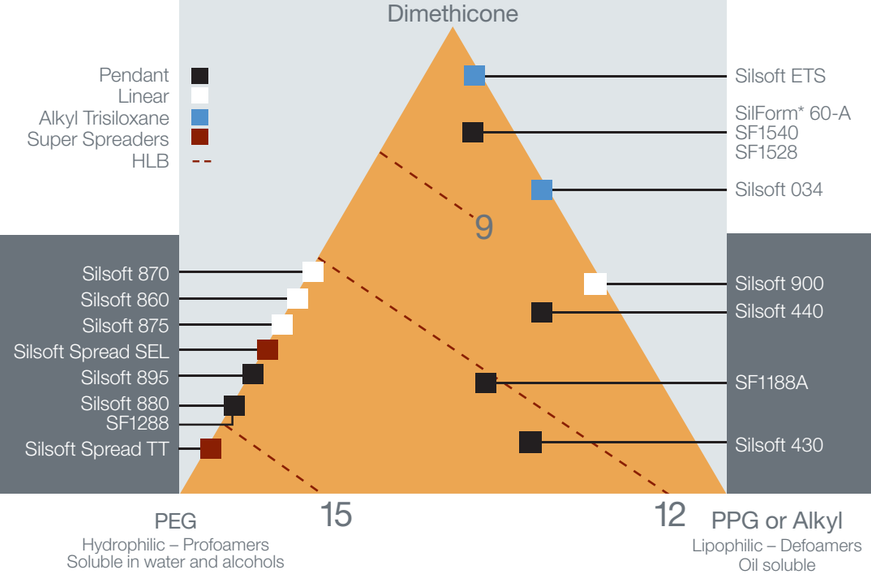
Spreading Potential



Hydrolytic Stability for Silsoft Spread TT Fluid



Copolymer Selection Guide
Emolliency, Conditioning, Water Barrier, Spreading



Each corner of the triangle either represents 100% Dimethicone, 100% PEG or 100% PPG or Alkyl. The properties of a product can be estimated depending upon its position within the selector triangle, relative to the corners.

Note: Test results. Actual results may vary.

Silicone Specialties for Personal Care

Potential Applications

Product Category and Product Name	INCI Name	Antiperspirant/ Deodorant					Decorative & Color Cosmetics					Ethnic Hair Care				Hair Care							Hair Color Retention			Shaving		Shower & Bath			Skin & Sun Care		
		Creams	Gels	Roll-ons	Pump Sprays	Sticks/Solids	Eye Shadow	Mascara	Foundation	Lip Products	Powders	Shampoo	Conditioner	Styling Products	Relaxers	Shampoo	Conditioner	Curl Activators	Cuticle Coats	Waxes/Pomades	Mousse	Pump Spray	Shampoo	Conditioner	Developers	Pre/After-Shave Lotion	Shaving Foam	Liquid Soap	Shower Gel	Shower Conditioner	Body Care	Facial Care	Sunscreen
Silicone Structurants/Sensory Enhancers																																
Velvesil* 034 organosilicone gel	Caprylyl Methicone (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	X	X	X	X		X	X	X	X			X	X			X		X		X			X		X				X	X	X
Velvesil FX gel powder	Cyclopentasiloxane (and) Boron Nitride (and) Caprylyl Methicone (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	X	X	X		X	X	X	X	X	X			X					X	X						X				X	X	X
Velvesil Plus gel	Cyclopentasiloxane (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer (and) PEG/PPG-20/23 Dimethicone	X	X	X		X	X	X	X	X	X			X					X	X						X				X	X	X	X
Velvesil DM silicone	Dimethicone (and) Cetearyl Dimethicone Crosspolymer					X	X	X	X	X	X			X					X	X						X			X	X	X	X	X
Velvesil 125 crosspolymer network	Cyclopentasiloxane (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	X	X	X		X	X	X	X	X	X			X					X	X						X				X	X	X	X
Silsoft* Silicone gel	Cyclopentasiloxane (and) Cetearyl Dimethicone/Vinyl Dimethicone Crosspolymer	X	X	X		X	X	X	X	X	X															X					X	X	X
SFE839	Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer	X	X	X		X	X	X	X	X	X															X					X	X	X
Silicone Spheres																																	
Tospearl* AQ microspheres	Polymethylsilsesquioxane (and) Polyquaternium-7 (and) PEG-7 Glyceryl Cocoate (and) Methylsilanol Tri-PEG-8 Glyceryl Cocoate								X							X	X									X		X	X	X	X	X	X
Tospearl 150KA microspheres	Polymethylsilsesquioxane						X	X	X	X	X																				X	X	X
Tospearl 1110A microspheres	Polymethylsilsesquioxane						X	X	X	X	X																				X	X	X
Silsoft E-Pearl emulsion	Polymethylsilsesquioxane (and) Dimethicone (and) Isohexadecane (and) PEG-40 Stearate (and) Cetearyl Methicone (and) Steareth-2 (and) Steareth-21								X																	X		X	X	X	X	X	X
Tospearl 120A microspheres	Polymethylsilsesquioxane						X	X	X	X	X						X														X	X	X
Tospearl 145A microspheres	Polymethylsilsesquioxane						X	X	X	X	X																				X	X	X
Tospearl 2000B microspheres	Polymethylsilsesquioxane	X		X		X	X	X	X	X	X																				X	X	X
Tospearl 3000A microspheres	Polymethylsilsesquioxane	X		X		X	X	X	X	X	X																				X	X	X
Boron Nitride																																	
Momentive Softouch* CCS402 (BN) powder	Boron Nitride	X					X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6097 (BN) powder	Boron Nitride	X					X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6064 (BN) powder	Boron Nitride (and) Dimethicone						X	X	X	X																					X	X	X
Momentive Softouch CCS102 (BN) powder	Boron Nitride	X	X	X			X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6004 (BN) powder	Boron Nitride	X	X	X			X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6058 (BN) powder	Boron Nitride	X	X	X			X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6059 (BN) powder	Boron Nitride	X	X	X			X	X	X	X	X															X	X				X	X	X
Momentive Softouch CC6069 (BN) powder	Boron Nitride	X	X	X			X	X	X	X	X															X	X				X	X	X
Silicone Resins																																	
SilForm* Flexible resin	Polymethylsilsesquioxane	X					X	X	X	X									X	X		X									X	X	X
SR1000	Trimethylsiloxysilicate						X	X	X	X									X	X		X									X	X	X
SS4230	Cyclopentasiloxane (and) Trimethylsiloxysilicate						X	X	X	X									X	X		X									X	X	X
SS4267	Dimethicone (and) Trimethylsiloxysilicate						X	X	X	X	X								X	X		X									X	X	X
Silsoft FR-5 fluid	Trifluoropropyldimethylsiloxy/Trimethylsiloxy Silsesquioxane (and) Dimethicone	X					X	X	X	X									X	X		X									X	X	X
SilForm FR-10 fluid	Trifluoropropyldimethylsiloxy/Trimethylsiloxy Silsesquioxane (and) Dimethicone	X					X	X	X	X									X	X		X									X	X	X
Silsoft Style silicone	Silica Dimethicone Silylate (and) TEA Dodecylbenzenesulfonate (and) PEG/PPG-5/3 Trisiloxane													X				X		X	X	X											
Silicone Emulsifiers																																	
SF1528	Cyclopentasiloxane (and) PEG/PPG-20/15 Dimethicone		X	X	X			X	X					X	X					X						X					X	X	X
SF1540	Cyclopentasiloxane (and) PEG/PPG-20/15 Dimethicone		X	X	X			X	X					X	X					X						X					X	X	X
SilForm EOF emulsifier	Polysilicone-25			X	X	X		X	X	X				X	X					X	X					X	X				X	X	X
SilForm 60-A emulsifier	PEG/PPG-20/15 Dimethicone (and) Diisopropyl Adipate			X	X	X		X	X	X				X	X					X	X					X	X				X	X	X
Silicone Waxes																																	
SF1632	Cetearyl Methicone	X		X		X		X	X	X				X						X						X		X	X	X	X	X	X
SF1642	C30-45 Alkyl Dimethicone	X		X		X		X	X	X				X						X								X	X	X	X	X	X

Note: A full line of basic silicones is available, including oils, volatiles, gums and various blends.
Please contact Customer Service for additional information.

Silicone Specialties for Personal Care

Potential Applications

		Antiperspirant/ Deodorant					Decorative & Color Cosmetics					Ethnic Hair Care				Hair Care							Hair Color Retention			Shaving		Shower & Bath			Skin & Sun Care		
Product Category and Product Name	INCI Name	Creams	Gels	Roll-ons	Pump Sprays	Sticks/Solids	Eye Shadow	Mascara	Foundation	Lip Products	Powders	Shampoo	Conditioner	Styling Products	Relaxers	Shampoo	Conditioner	Curl Activators	Cuticle Coats	Waxes/Pomades	Mousse	Pump Spray	Shampoo	Conditioner	Developers	Pre/After-Shave Lotion	Shaving Foam	Liquid Soap	Shower Gel	Shower Conditioner	Body Care	Facial Care	Sunscreen
Alkyl Silicones																																	
Silsoft* ETS trisiloxane	Ethyl Trisiloxane	X	X	X	X	X	X	X	X	X	X															X	X				X	X	X
Silsoft 034 organosilicone fluid	Caprylyl Methicone								X	X				X						X			X			X		X	X	X	X	X	X
Silicone Polyacrylate Emulsion																																	
Silsoft SurFace PF film former	Dimethicone PEG-8 Polyacrylate							X	X					X							X	X											
Silicone Quats																																	
Silsoft Q PF cationic aminosilicone terpolymer	Water (and) Silicone Quaternium-18 (and) Trideceth-6 (and) Trideceth-12											X	X			X	X				X	X	X	X	X			X	X	X			
Silsoft Care quat blend	Cyclopentasiloxane (and) Silicone Quaternium-18												X	X			X	X	X	X				X				X	X	X			
Phenyl Modified Fluids																																	
SF1550	Phenyltrimethicone	X	X	X	X	X			X	X	X								X	X		X				X					X	X	X
SF1555	Bisphenylpropyl Dimethicone	X	X	X	X	X			X	X	X								X	X		X				X					X	X	X
SilShine* 151 gloss additive	Phenylpropyldimethylsiloxysilicate	X	X	X	X	X	X		X	X	X		X	X			X		X	X		X				X					X	X	X
Aminofunctional Silicones/Amodimethicone																																	
Silsoft A+ conditioning agent	PEG-40/PPG-8 Methylaminopropyl/Hydroxypropyl Dimethicone Copolymer											X	X	X		X	X				X	X		X	X								
Silsoft AX conditioning agent	Bis-Cetearyl Amodimethicone											X	X	X		X	X		X	X		X	X	X									
Silsoft AX-E conditioning agent	Bis-Cetearyl Amodimethicone (and) Ceteareth-7 (and) Ceteareth-25(1)											X	X	X		X	X				X	X	X	X									
SF1708	Amodimethicone											X	X			X	X				X		X	X				X	X	X			
Silsoft A-843 copolymer	Bisamino PEG/PPG-41/3 Aminoethyl PG-Propyl Dimethicone											X	X			X	X							X	X			X	X	X			
Silsoft Tone color retaining conditioning agent	Polysilicone-18 Cetyl Phosphate											X	X	X		X	X			X			X					X	X	X			
Aminofunctional Emulsions																																	
Silsoft EMU 8110-N emulsion	Water (and) Dimethiconol (and) Amodimethicone (and) Bisamino PEG/PPG-41/3 Aminoethyl PG-Propyl Dimethicone (and) Laureth-4 (and) Laureth-5 (and) Laureth-23 (and) PEG-55 Stearate															X	X																	
SM2658	Amodimethicone (and) Trideceth-12 (and) Glycerin (and) Cetrimonium Chloride											X	X	X	X		X			X				X				X	X				
SME253 PF	Amodimethicone (and) C11-15 Pareth-7 (and) Laureth-9 (and) Glycerin (and) Trideceth-12											X	X	X	X	X	X			X	X		X	X				X	X				
Polyether Siloxane Copolymers																																	
SF1188A	PEG/PPG-20/15 Dimethicone	X	X	X		X		X	X	X						X	X					X				X	X	X	X	X			
Silsoft 880 dimethicone copolyol	PEG-12 Dimethicone	X	X	X				X	X	X		X				X	X									X	X	X	X	X	X	X	
Silsoft 860 dimethicone copolyol	PEG-10 Dimethicone	X	X	X		X			X			X		X		X							X			X	X	X	X		X		X
Silsoft 440 dimethicone copolyol	PEG-20/PPG-23 Dimethicone	X		X					X					X		X		X		X	X	X				X	X						
SF1288	PEG-12 Dimethicone			X					X					X		X		X		X	X	X				X	X	X	X				
Silsoft 895 dimethicone copolyol	PEG-17 Dimethicone											X		X		X										X	X	X	X				
Silsoft 900 dimethicone copolyol	PPG-12 Dimethicone									X				X						X													
Silsoft SEL fluid	Polysilicone-16 (and) Trideceth-5	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
Silsoft TT fluid	Polysilicone-17 (and) Trideceth-5 (and) Meroxapol 172	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X
Gum Fluid Blends																																	
Silsoft 1215	Cyclopentasiloxane (and) Dimethiconol						X		X	X	X		X	X			X	X	X	X						X					X	X	X
SF1236	Dimethicone								X																						X	X	X
CF1251	Dimethicone											X				X		X															

Note: A full line of basic silicones is available, including oils, volatiles, gums and various blends.
Please contact Customer Service for additional information.

(1) Proposed

Silicone Specialties for Personal Care

Typical Physical Properties(1)

Product Category and Product Name	INCI Name	% Silicone	Viscosity @ 25°C	Specific Gravity @ 25°C	Flash Point °C (Closed Cup)	Refractive Index @ 25°C	Appearance
Silicone Structurants/Sensory Enhancers							
Velvesil* 034 organosilicone gel	Caprylyl Methicone (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	100	>100,000 cP	0.85	110	1.413	Clear to translucent gel
Velvesil FX gel powder	Cyclopentasiloxane (and) Boron Nitride (and) Caprylyl Methicone (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	70–90		0.959	77		White gel powder
Velvesil Plus gel	Cyclopentasiloxane (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer (and) PEG/PPG-20/23 Dimethicone	100	>150,000 cP	0.95	77		Translucent gel
Velvesil DM silicone	Dimethicone (and) Cetearyl Dimethicone Crosspolymer	100	>65,000 cSt	0.96	135	1.399	Clear to translucent gel
Velvesil 125 crosspolymer network	Cyclopentasiloxane (and) C30-45 Alkyl Cetearyl Dimethicone Crosspolymer	100	>130,000 cP	0.95	77	1.399	Translucent gel
Silsoft* silicone gel	Cyclopentasiloxane (and) Cetearyl Dimethicone/Vinyl Dimethicone Crosspolymer	100	10,000–25,000 cP(2)	0.87	77		Clear, colorless gel
SFE839	Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer	100	10,000–30,000 cP(2)	0.95	82	1.396	Clear, colorless gel
Silicone Spheres							
Tospearl* AQ microspheres	Polymethylsilsesquioxane (and) Polyquaternium-7 (and) PEG-7 Glyceryl Cocoate (and) Methylsilanol Tri-PEG-8 Glyceryl Cocoate	>97		1.36			White powder
Tospearl 150KA microspheres	Polymethylsilsesquioxane	100		1.32			White, spiky powder
Tospearl 1110A microspheres	Polymethylsilsesquioxane	100		1.32			White, spherical powder
Silsoft E-Pearl emulsion	Polymethylsilsesquioxane (and) Dimethicone (and) Isohexadecane (and) PEG-40 Stearate (and) Cetearyl Methicone (and) Steareth-2 (and) Steareth-21	60	7,000 cP	1.02			White liquid
Tospearl 120A microspheres	Polymethylsilsesquioxane	100		1.32			White, spherical powder
Tospearl 145A microspheres	Polymethylsilsesquioxane	100		1.32			White, spherical powder
Tospearl 2000B microspheres	Polymethylsilsesquioxane	100		1.32			White, spherical powder
Tospearl 3000A microspheres	Polymethylsilsesquioxane	100		1.32			White, spherical powder
Boron Nitride							
Momentive Softouch* CCS402 (BN) powder	Boron Nitride			2.28			White crystal
Momentive Softouch CC6097 (BN) powder	Boron Nitride			2.28			White crystal
Momentive Softouch CC6064 (BN) powder	Boron Nitride (and) Dimethicone	3		2.19			White crystal
Momentive Softouch CCS102 (BN) powder	Boron Nitride			2.24		1.65 (in-plane)	White crystal
Momentive Softouch CC6004 (BN) powder	Boron Nitride			2.24		1.65 (in-plane)	White crystal
Momentive Softouch CC6058 (BN) powder	Boron Nitride			2.24		1.65 (in-plane)	White crystal
Momentive Softouch CC6059 (BN) powder	Boron Nitride			2.24		1.65 (in-plane)	White crystal
Momentive Softouch CC6069 (BN) powder	Boron Nitride			2.24		1.65 (in-plane)	White crystal
Silicone Resins							
SilForm* Flexible resin	Polymethylsilsesquioxane	100		1.24		238	White powder
SR1000	Trimethylsiloxysilicate	100					White powder
SS4230	Cyclopentasiloxane (and) Trimethylsiloxysilicate	100	70–200 cSt	1.05	>65.5	1.406	Clear, colorless liquid
SS4267	Dimethicone (and) Trimethylsiloxysilicate	100	300–700 cSt	1.025	201	1.409	Clear, colorless liquid
Silsoft FR-5 fluid	Trifluoropropyldimethylsiloxy/Trimethylsiloxy Silsesquioxane (and) Dimethicone	100	0.5 Pas max	1.045	190	1.406	Clear liquid
SilForm FR-10 fluid	Trifluoropropyldimethylsiloxy/Trimethylsiloxy Silsesquioxane (and) Dimethicone	100	0.4 Pas	1.06	190	1.406	Clear liquid
Silsoft Style silicone	Silica Dimethicone Silylate (and) TEA Dodecylbenzenesulfonate (and) PEG/PPG-5/3 Trisiloxane	20	10	1			White liquid
Silicone Emulsifiers							
SF1528	Cyclopentasiloxane (and) PEG/PPG-20/15 Dimethicone	100	250 cSt max.	0.959	77		Colorless liquid
SF1540	Cyclopentasiloxane (and) PEG/PPG-20/15 Dimethicone	100	10,000–50,000 cP	1.00	63	1.407	Cream to white liquid
SilForm EOF emulsifier	Polysilicone-25	95	2,000–10,000 cSt		102		Straw-colored liquid
SilForm 60-A emulsifier	PEG/PPG-20/15 Dimethicone (and) Diisopropyl Adipate	60	8,500 cP	0.96	104	1.4241	Transparent, straw-colored liquid
Silicone Waxes							
SF1632	Cetearyl Methicone	100		0.81	>100	1.459	White wax
SF1642	C30-45 Alkyl Dimethicone	100			>100		Tan-colored wax pastilles

Note: A full line of basic silicones is available, including oils, volatiles, gums and various blends.
Please contact Customer Service for additional information.

(1) Typical data are average data. The actual values may vary.
Product specifications for specific applications need to be agreed upon individually.

(2) Worked viscosity

Silicone Specialties for Personal Care

Typical Physical Properties[1]

Product Category and Product Name	INCI Name	% Silicone	Viscosity @ 25°C	Specific Gravity @ 25°C	Flash Point °C (Closed Cup)	Refractive Index @ 25°C	Appearance
Alkyl Silicones							
Silsoft* ETS trisiloxane	Ethyl Trisiloxane	>98	1.1 mPas 20°C	0.83	45		Clear, colorless liquid
Silsoft 034 organosilicone fluid	Caprylyl Methicone	100	3.3 cSt max.	0.83	110	1.413	Clear, colorless liquid
Silicone Polyacrylate Emulsion							
Silsoft SurFace PF film former	Dimethicone PEG-8 Polyacrylate	25	100–1,000 cP	1.02			Milky white to beige liquid
Silicone Quats							
Silsoft Q PF cationic aminosilicone terpolymer	Water (and) Silicone Quaternium-18 (and) Trideceth-6 (and) Trideceth-12	20	~100 mPas	0.99			Clear to slightly hazy liquid
Silsoft Care quat blend	Cyclopentasiloxane (and) Silicone Quaternium-18	100	4,000 cSt	0.95		1.369	Colorless to yellowish liquid
Phenyl Modified Fluids							
SF1550	Phenyltrimethicone	100	15–30 cSt	0.98	138 by DIN 51758	1.46	Clear, colorless liquid
SF1555	Bisphenylpropyl Dimethicone	100	5–25 cSt	0.968	>204	1.47	Clear, colorless liquid
SilShine* 151 gloss additive	Phenylpropyldimethylsiloxysilicate	100	280–1,000 cSt	1.07	238 by DIN 51757	1.51	Clear, slightly yellow liquid
Aminofunctional Silicones/Amodimethicone							
Silsoft A+ conditioning agent	PEG-40/PPG-8 Methylaminopropyl/Hydroxypropyl/Dimethicone Copolymer	30	10,000 cSt				Transparent to hazy liquid
Silsoft AX conditioning agent	Bis-Cetearyl Amodimethicone	100	5,000–20,000 cSt				Clear, colorless
Silsoft AX-E conditioning agent	Bis-Cetearyl Amodimethicone (and) Ceteareth-7 (and) Ceteareth-25[2]	40	40–200 cP	1			Milky white liquid
SF1708	Amodimethicone	100	1,250–2,500 cSt	1.01	100		Clear to straw-colored liquid
Silsoft A-843 copolymer	Bisamino PEG/PPG-41/3 Aminoethyl PG-Propyl Dimethicone	30	5,000 cSt	1.01	67		Translucent, yellow liquid
Silsoft Tone color retaining conditioning agent	Polysilicone-18 Cetyl Phosphate	95	80,000–120,000 cSt	0.99	>110		Pale yellow, hazy liquid
Aminofunctional Emulsions							
Silsoft EMU 8110-N emulsion	Water (and) Dimethiconol (and) Amodimethicone (and) Bisamino PEG/PPG-41/3 Aminoethyl PG-Propyl Dimethicone (and) Laureth-4 (and) Laureth-5 (and) Laureth-23 (and) PEG-55 Stearate	50	10,000 cP	1.00			Milky white fluid
SM2658	Amodimethicone (and) Trideceth-12 (and) Glycerin (and) Cetrimonium Chloride	35		0.99	>100		Light yellow liquid
SME253 PF	Amodimethicone (and) C11-15 Pareth-7 (and) Laureth-9 (and) Glycerin (and) Trideceth-12	17–20	2,000 cP max.	1.00			White liquid
Polyether Siloxane Copolymers							
SF1188A	PEG/PPG-20/15 Dimethicone	100	800–1,400 cSt	1.04	>100	1.448	Clear, straw-colored liquid
Silsoft 880 dimethicone copolyol	PEG-12 Dimethicone	100	350–950 cSt	1.09	129	1.457	Pale yellow liquid
Silsoft 860 dimethicone copolyol	PEG-10/PEG-10 Dimethicone	100	174 cSt	1.002	132	1.442	Clear, straw-colored liquid
Silsoft 440 dimethicone copolyol	PEG-20/PPG-23 Dimethicone	100	1,700 cSt	1.023	97	1.447	Clear, pale yellow liquid
SF1288	PEG-12 Dimethicone	100	250–600 cSt	1.07	>150	1.45	Clear, colorless liquid
Silsoft 895 dimethicone copolyol	PEG-17 Dimethicone	100		1.078	140	1.453	Colorless wax
Silsoft 900 dimethicone copolyol	PPG-12 Dimethicone	100	250 cSt	0.989	112	1.435	Clear, straw-colored liquid
Silsoft SEL fluid	Polysilicone-16 (and) Trideceth-5	10	40–120 cP	1	116	1.4538	Clear, straw-colored liquid
Silsoft TT fluid	Polysilicone-17 (and) Trideceth-5 (and) Meroxapol 172	25	35–70 cP	0.989	160	1.4549	Clear, straw-colored liquid
Gum Fluids Blends							
Silsoft 1215	Cyclopentasiloxane (and) Dimethiconol	100	4,500–8,000 mPas	0.95	77	1.40	Clear, colorless liquid
SF1236	Dimethicone	100	3,000–5,000 cP	0.92	>135	1.40	Clear, colorless liquid
CF1251	Dimethicone	100	350,000–850,000 cP	0.97	148	1.40	Clear, colorless liquid

Note: A full line of basic silicones is available, including oils, volatiles, gums and various blends.
Please contact Customer Service for additional information.

(1) Typical data are average data. The actual values may vary.
Product specifications for specific applications need to be agreed upon individually.

(2) Proposed

Customer Service Centers

Worldwide Hotline

4information@momentive.com

+1 614 986 2495 / T +1 800 295 2392

North America

Silicones

T +1 800 332 3390

Consumer Sealants/
Construction Sealants and Adhesives

T +1 877 943 7325

Latin America

South America

T +55 11 4534 9650

Mexico and Central America

T +52 55 2169 7670

Europe, Middle East, Africa and India

+00 800 4321 1000 / +40 21 3111848

Pacific

China

T +800 820 0202 / +86 21 3860 4892

Japan

T +0120 975 400 / +81 276 20 6182

Korea

T +82 2 6201 4600

Malaysia

T +60 3 9206 1532

Thailand

T +66 2207 3456

MOMENTIVE™

Momentive Performance Materials Inc.

22 Corporate Woods Boulevard
Albany, NY 12211 USA
momentive.com

MPM 132-034-10 3/12 Printed in U.S.A.