

## Shin-Etsu Silicone

# Silicone Products for Personal Care

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## 1 Dimethyl Silicone Fluids

Grade	Parameter	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Volatile Matter 150°C/24h %	Pour Point °C	Flash Point °C
KF-96A-1cs		TRISILOXANE	1	0.818	1.382	Boiling point 153°C	-86	37
KF-96L-1.5cs		DIMETHICONE	1.5	0.853	1.388	Boiling point 190°C	-86	64
KF-96L-2cs		DIMETHICONE	2	0.852	1.388	—	< -60	88
KF-96A-5cs		DIMETHICONE	5	0.915	1.396	—	< -60	102
KF-96A-6cs		DIMETHICONE	6	0.925	1.397	—	< -60	174
KF-96A-10cs		DIMETHICONE	10	0.935	1.399	30	< -60	176
KF-96A-20cs		DIMETHICONE	20	0.950	1.400	< 5.0	< -60	264
KF-96A-30cs		DIMETHICONE	30	0.955	1.401	< 1.5	< -55	280
KF-96A-50cs		DIMETHICONE	50	0.960	1.402	< 0.5	< -50	> 300
KF-96A-100cs		DIMETHICONE	100	0.965	1.403	< 0.5	< -50	> 300
KF-96A-200cs		DIMETHICONE	200	0.970	1.403	< 0.5	< -50	> 315
KF-96A-300cs		DIMETHICONE	300	0.970	1.403	< 0.5	< -50	> 315
KF-96A-350cs		DIMETHICONE	350	0.970	1.403	< 0.5	< -50	> 315
KF-96A-500cs		DIMETHICONE	500	0.970	1.403	< 0.5	< -50	> 315
KF-96-1,000cs		DIMETHICONE	1,000	0.970	1.403	< 0.5	< -50	> 315
KF-96-3,000cs		DIMETHICONE	3,000	0.970	1.403	< 0.5	< -50	> 315
KF-96A-5,000cs		DIMETHICONE	5,000	0.975	1.403	< 0.5	< -50	> 315
KF-96H-6,000cs		DIMETHICONE	6,000	0.975	1.403	< 0.5	< -50	> 315
KF-96H-10,000cs		DIMETHICONE	10,000	0.975	1.403	< 0.5	< -50	> 315
KF-96H-12,500cs		DIMETHICONE	12,500	0.975	1.403	< 0.5	< -50	> 315
KF-96H-30,000cs		DIMETHICONE	30,000	0.976	1.403	< 0.5	< -50	> 315
KF-96H-50,000cs		DIMETHICONE	50,000	0.976	1.403	< 0.5	< -50	> 315
KF-96H-60,000cs		DIMETHICONE	60,000	0.976	1.403	< 0.5	< -50	> 315
KF-96H-100,000cs		DIMETHICONE	100,000	0.977	1.403	< 0.5	< -50	> 315
KF-96H-300,000cs		DIMETHICONE	300,000	0.977	1.403	< 0.5	< -50	> 315
KF-96H-500,000cs		DIMETHICONE	500,000	0.978	1.403	< 0.5	< -50	> 315
KF-96H-1,000,000cs		DIMETHICONE	1,000,000	0.978	1.403	< 0.5	< -50	> 315

\* The commercial name in US is DM-FLUID-xxx, outside of US is KF-96-xxx.

(Not specific values)

## 2 Volatile Silicones

Grade	Parameter	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Freezing Point °C	Boiling Point °C	Flash Point °C	Surface Tension 25°C mN/m
KF-995		CYCLOPENTASILOXANE	4.0	0.96	1.396	-40	210	77	17.8
TMF-1.5		METHYL TRIMETHICONE	1.5	0.85	1.386	-83	191	61	16.8

(Not specific values)

## 3 Methyl Phenyl Silicone Fluids

Grade	Parameter	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Volatile Matter 150°C/24h %	Pour Point °C	Flash Point °C
KF-53		DIPHENYL DIMETHICONE	175	1.055	1.485	< 0.3	< -30	> 300
KF-54		DIPHENYL DIMETHICONE	400	1.070	1.505	< 0.3	< -30	> 300
KF-56A		DIPHENYLSILOXY PHENYL TRIMETHICONE	15	0.995	1.498	15*	< -55	> 100

\* 105°C/3h

(Not specific values)

## 4 Amino Modified Silicones

Parameter Grade	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C
<b>KF-8004</b>	AMODIMETHICONE	800	0.980	1.408
<b>KF-8015</b>	AMINOPROPYL DIMETHICONE	50,000-100,000	0.975	1.405
<b>KF-867S</b>	AMODIMETHICONE	1,300	0.980	1.407

(Not specific values)

## 5 Other Modified Silicone

Parameter Grade	INCI	Modified Type	Melting Point °C	Specific Gravity 25°C
<b>KF-7002</b>	STEAROXYMETHICONE/DIMETHICONE COPOLYMER	Stearoxy	40-50	0.890

(Not specific values)

## 6 Fluid Compounds

Parameter Grade	INCI	Appearance	Viscosity 25°C mPa·s	Specific Gravity 25°C
<b>KS-66</b>	SIMETHICONE	Light gray translucent liquid	300	1.01
<b>KS-69</b>	SIMETHICONE	Light gray translucent paste	2,500	1.01

(Not specific values)

## 7 Dimethyl Silicone Blends

Parameter Grade	INCI	Component A	Viscosity 25°C mPa·s	Specific Gravity 25°C	Refractive Index 25°C	Dimethicone Gum Content %	Solvent
		Component B					
<b>KF-9008</b>	DIMETHICONE	CYCLOPENTASILOXANE	30,000	0.961	1.397	20	KF-995
	CYCLOPENTASILOXANE						
<b>KF-9011</b>	DIMETHICONE	CYCLOPENTASILOXANE	1,600	0.959	1.397	10	KF-995
	CYCLOPENTASILOXANE						
<b>KF-9013</b>	DIMETHICONE	DIMETHICONE	15,000	0.954	1.401	15	KF-96A-20cs
	DIMETHICONE						
<b>KF-9014</b>	DIMETHICONE	CYCLOPENTASILOXANE	6,000	0.960	1.397	15	KF-995
	CYCLOPENTASILOXANE						
<b>MK-15H</b>	DIMETHICONE	DIMETHICONE	45,000	0.958	1.402	20	KF-96A-20cs
	DIMETHICONE						
<b>X-21-5495</b>	DIMETHICONE	CYCLOPENTASILOXANE	3,000	0.961	1.397	15	KF-995
	CYCLOPENTASILOXANE						
<b>KF-9028</b>	DIMETHICONE	CYCLOPENTASILOXANE	3,000	0.965	1.398	20	KF-995
	CYCLOPENTASILOXANE						
<b>KF-9030</b>	DIMETHICONE	DIMETHICONE	5,000	0.955	1.401	20	KF-96A-20cs
	DIMETHICONE						

(Not specific values)

## 8 High Polymerization Dimethiconol

Grade	Parameter	INCI	Component A	Viscosity 25°C mPa·s	Specific Gravity 25°C	Refractive Index 25°C	Dimethiconol Content %	Solvent
			Component B					
X-21-5613		DIMETHICONOL DIMETHICONE		5,000	0.957	1.401	20	KF-96A-20cs
X-21-5666		DIMETHICONOL CYCLOPENTASILOXANE		15,000	0.960	1.398	30	KF-995
X-21-5849		DIMETHICONOL		100,000	0.977	1.403	100	—

(Not specific values)

## 9 Amino Gums

Grade	Parameter	INCI	Component A	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Amino Gum Content %	Solvent
			Component B					
KF-8017		AMINOPROPYL DIMETHICONE DIMETHICONE		2,000	0.956	1.401	10	KF-96A-20cs
KF-8018		AMINOPROPYL DIMETHICONE CYCLOPENTASILOXANE		2,000	0.961	1.397	10	KF-995
KF-8020		AMINOPROPYL DIMETHICONE DIMETHICONE		40,000	0.956	1.401	20	KF-96A-20cs

(Not specific values)

## 10 Silicone Emulsions

Grade	Parameter	INCI	Composition %	Appearance	Viscosity 25°C mPa·s	Base Oil	Silicone Solvent	Silicone Content %	PH 25°C	Ionic Property
KM-901		Component A : DIMETHICONE Others	50.0	Milky white emulsion	100	KF-96H- 60,000cs	—	50	3.0	Nonionic
			6.25							
KM-902		Component A : DIMETHICONE Others	50.0	Milky white emulsion	100	KF-96H- 500,000cs	—	50	3.0	Nonionic
			6.15							
KM-903		Component A : DIMETHICONE Component B : DIMETHICONE Others	18.0	Milky white emulsion	1,000	Dimethicone gum	KF-96A- 200cs	60	3.0	Nonionic
			42.0							
			6.25							
KM-905		Component A : DIMETHICONE Others	50.0	Milky white emulsion	100	KF-96A- 20cs	—	50	3.0	Nonionic
			6.25							
KM-906A		Component A : DIMETHICONE Others	45.0	Milky white emulsion	1,000	KF-96H- 100,000cs	—	50	5.0	Anionic
			10.6							
KM-910		Component A : DIMETHICONE Component B : DIMETHICONE Others	36.0	Milky white emulsion	2,500	Dimethicone gum	KF-96A- 200cs	60	5.0	Nonionic
			24.0							
			6.75							
KM-9729		Component A : DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER Others	50.0	Milky white emulsion	—	Silicone rubber powder	—	50	5.0	Nonionic
			2.75							
X-52-2042		Component A : DIMETHICONE Component B : DIMETHICONE Others	33.0	Milky white emulsion	1,000	Dimethicone gum	KF-96A- 200cs	60	3.0	Nonionic
			27.0							
			6.25							

(Not specific values)

## Silicone Emulsions

Parameter Grade	INCI	Composition %	Appearance	Viscosity 25°C mPa·s	Base Oil	Silicone Solvent	Silicone Content %	PH 25°C	Ionic Property
<b>X-52-2127</b>	Component A : DIMETHICONE	30.0	Milky white emulsion	4,000	Dimethicone gum	KF-96A-200cs	75	7.0	Cationic
	Component B : DIMETHICONE	45.0							
	Others	4.5							
<b>X-52-2162</b>	Component A : DIMETHICONE	26.0	Milky white emulsion	3,000	Dimethicone gum	KF-96A-200cs	65	3.5	Nonionic
	Component B : DIMETHICONE	39.0							
	Others	5.25							
<b>X-52-2265</b>	Component A : AMODIMETHICONE	40.0	Milky white emulsion	—	Amino modified silicone	—	40	6.0	Nonionic
	Others	10.1							
<b>X-52-2328</b>	Component A : AMINOPROPYL DIMETHICONE	12.0	Milky white emulsion	2,000	Amino modified gum	KF-96A-20cs	60	7.0	Nonionic
	Component B : DIMETHICONE	48.0							
	Others	9.5							

(Not specific values)

## 11 Polyether Modified Silicones

Parameter Grade	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Calculated HLB wt % EO/5	Cloud Point °C
<b>KF-6011</b>	PEG-11 METHYL ETHER DIMETHICONE	130	1.07	1.450	14.5	65
<b>KF-6011P</b>	PEG-11 METHYL ETHER DIMETHICONE	140	1.07	1.450	14.5	65
<b>KF-6012</b>	PEG/PPG-20/22 BUTYL ETHER DIMETHICONE	1,600	1.03	1.446	7.0	35
<b>KF-6013</b>	PEG-9 DIMETHICONE	400	1.03	1.436	10.0	—
<b>KF-6015</b>	PEG-3 DIMETHICONE	150	1.00	1.420	4.5	—
<b>KF-6016</b>	PEG-9 METHYL ETHER DIMETHICONE	150	1.01	1.417	4.5	—
<b>KF-6017</b>	PEG-10 DIMETHICONE	600	1.01	1.420	4.5	—
<b>KF-6017P</b>	PEG-10 DIMETHICONE	850	1.01	1.420	4.5	—
<b>KF-6004</b>	PEG-32 METHYL ETHER DIMETHICONE	Solid (melting point 45°C)	—	—	9.0	—
<b>KF-6028</b>	PEG-9 POLYDIMETHYLSILOXYETHYL DIMETHICONE	900	1.00	1.420	4.0	—
<b>KF-6028P</b>	PEG-9 POLYDIMETHYLSILOXYETHYL DIMETHICONE	900	1.00	1.420	4.0	—
<b>KF-6038</b>	LAURYL PEG-9 POLYDIMETHYLSILOXYETHYL DIMETHICONE	700	0.96	1.430	3.0	—
<b>KF-6043</b>	PEG-10 DIMETHICONE	400	1.09	1.454	14.5	71

\* P Grade: odorless versions created using an improved deodorization process.

(Not specific values)

## 12 Polyglycerin Modified Silicones

Parameter Grade	INCI	Viscosity 25°C mPa·s	Specific Gravity 25°C	Refractive Index 25°C	Estimated HLB
<b>KF-6100</b>	POLYGLYCERYL-3 DISILOXANE DIMETHICONE	40,000	1.08	1.458	Medium
<b>KF-6104</b>	POLYGLYCERYL-3 POLYDIMETHYLSILOXYETHYL DIMETHICONE	4,000	1.00	1.409	Low
<b>KF-6105</b>	LAURYL POLYGLYCERYL-3 POLYDIMETHYLSILOXYETHYL DIMETHICONE	4,000	0.95	1.426	Low

(Not specific values)

## 13 Silicone Gels

Parameter Grade	INCI	Component A	Appearance	Penetration (worked) 25°C	Refractive Index 25°C	Base Oil	Crosspolymer %
		Component B					
<b>KSG-15</b>	DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER		Colorless transparent paste	420	1.397	KF-995	4-10
	CYCLOPENTASILOXANE						
<b>USG-103</b>	DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER		Colorless transparent paste	350	1.398	KF-995	8-12
	CYCLOPENTASILOXANE						
<b>KSG-16</b>	DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	330	1.400	KF-96A-6cs	20-30
	DIMETHICONE						
<b>KSG-1610</b>	DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	380	1.389	TMF-1.5	15-20
	METHYL TRIMETHICONE						
<b>USG-106</b>	DIMETHICONE/VINYL DIMETHICONE CROSSPOLYMER		Colorless transparent paste	420	1.418	ISODODECANE	8-12
	ISODODECANE						
<b>KSG-18A</b>	DIMETHICONE/PHENYL VINYL DIMETHICONE CROSSPOLYMER		Colorless transparent paste	330	1.495	KF-56A	10-20
	DIPHENYLSILOXY PHENYL TRIMETHICONE						
<b>KSG-41</b>	VINYL DIMETHICONE/LAURYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	400	1.455	MINERAL OIL	25-35
	MINERAL OIL						
<b>KSG-42</b>	VINYL DIMETHICONE/LAURYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	380	1.422	ISODODECANE	20-30
	ISODODECANE						
<b>KSG-43</b>	VINYL DIMETHICONE/LAURYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	400	1.442	TRIETHYLHEXANOIN	25-35
	TRIETHYLHEXANOIN						
<b>KSG-44</b>	VINYL DIMETHICONE/LAURYL DIMETHICONE CROSSPOLYMER		Colorless translucent paste	380	1.447	SQUALANE	25-35
	SQUALANE						
<b>KSG-210</b>	DIMETHICONE/PEG-10/15 CROSSPOLYMER		Colorless milky white paste	400	1.403	KF-96A-6cs	20-30
	DIMETHICONE						
<b>KSG-240</b>	DIMETHICONE/PEG-10/15 CROSSPOLYMER		Colorless milky white paste	400	1.400	KF-995	15-25
	CYCLOPENTASILOXANE						
<b>KSG-310</b>	PEG-15/LAURYL DIMETHICONE CROSSPOLYMER		Colorless milky white paste	400	1.450	MINERAL OIL	25-35
	MINERAL OIL						
<b>KSG-320</b>	PEG-15/LAURYL DIMETHICONE CROSSPOLYMER		Colorless milky white paste	400	1.420	ISODODECANE	20-30
	ISODODECANE						
<b>KSG-330</b>	PEG-15/LAURYL DIMETHICONE CROSSPOLYMER		Colorless milky white paste	395	1.442	TRIETHYLHEXANOIN	15-25
	TRIETHYLHEXANOIN						
<b>KSG-340</b>	PEG-10/LAURYL DIMETHICONE CROSSPOLYMER PEG-15/ LAURYL DIMETHICONE CROSSPOLYMER		Colorless milky white paste	430	1.445	SQUALANE	25-35
	SQUALANE						
<b>KSG-710</b>	DIMETHICONE/POLYGLYCERIN-3 CROSSPOLYMER		Colorless milky white paste	400	1.400	KF-96A-6cs	20-30
	DIMETHICONE						
<b>KSG-810</b>	LAURYL DIMETHICONE/POLYGLYCERIN-3 CROSSPOLYMER		Colorless milky white paste	380	1.450	MINERAL OIL	25-35
	MINERAL OIL						
<b>KSG-820</b>	LAURYL DIMETHICONE/POLYGLYCERIN-3 CROSSPOLYMER		Colorless milky white paste	340	1.420	ISODODECANE	20-30
	ISODODECANE						
<b>KSG-830</b>	LAURYL DIMETHICONE/POLYGLYCERIN-3 CROSSPOLYMER		Colorless milky white paste	380	1.442	TRIETHYLHEXANOIN	15-25
	TRIETHYLHEXANOIN						
<b>KSG-840</b>	LAURYL DIMETHICONE/POLYGLYCERIN-3 CROSSPOLYMER		Colorless milky white paste	380	1.445	SQUALANE	25-35
	SQUALANE						

(Not specific values)

## 14 Silicone Acrylates

Parameter Grade	INCI	Component A	Viscosity 25°C mm <sup>2</sup> /s	Content %	Solvent
		Component B			
KP-541	ACRYLATES/DIMETHICONE COPOLYMER		500-10,000 mPa·s	60	ISOPROPYL ALCOHOL
	ISOPROPYL ALCOHOL				
KP-543	ACRYLATES/DIMETHICONE COPOLYMER		100-1,000	50	BUTYL ACETATE
	BUTYL ACETATE				
KP-545	ACRYLATES/DIMETHICONE COPOLYMER		100-500	30	KF-995
	CYCLOPENTASILOXANE				
KP-549	ACRYLATES/DIMETHICONE COPOLYMER		500-5,000	40	TMF-1.5
	METHYL TRIMETHICONE				
KP-550	ACRYLATES/DIMETHICONE COPOLYMER		100-3,000	40	ISODODECANE
	ISODODECANE				
KP-578	ACRYLATES/ETHYLHEXYL ACRYLATE/ DIMETHICONE METHACRYLATE COPOLYMER		150-200	100	—
KP-561P	ACRYLATES/STEARYL ACRYLATE/ DIMETHICONE METHACRYLATE COPOLYMER		Solid (melting point 25-35°C)	100	—
KP-562P	ACRYLATES/BEHENYL ACRYLATE/ DIMETHICONE METHACRYLATE COPOLYMER		Solid (melting point 45-55°C)	100	—

(Not specific values)

## 15 Trimethylsiloxysilicates

Parameter Grade	INCI	Component A	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Resin Content %	Solvent	Film Hardness
		Component B						
KF-7312J	TRIMETHYLSILOXYSILICATE		120	1.050	1.405	50	KF-995	Hard
	CYCLOPENTASILOXANE							
KF-7312K	TRIMETHYLSILOXYSILICATE		5,000	1.070	1.410	60	KF-96A-6cs	Hard
	DIMETHICONE							
KF-7312T	TRIMETHYLSILOXYSILICATE		50	1.009	1.400	60	TMF-1.5	Hard
	METHYL TRIMETHICONE							
X-21-5249	TRIMETHYLSILOXYSILICATE		60	1.034	1.404	50	KF-995	Medium
	CYCLOPENTASILOXANE							
X-21-5250	TRIMETHYLSILOXYSILICATE		60	1.034	1.404	50	KF-995	Soft
	CYCLOPENTASILOXANE							
KF-9021	TRIMETHYLSILOXYSILICATE		2,000	1.070	1.406	50	KF-995	Very hard
	CYCLOPENTASILOXANE							
X-21-5595	TRIMETHYLSILOXYSILICATE		35	0.967	1.416	60	ISODODECANE	Hard
	ISODODECANE							
X-21-5616	TRIMETHYLSILOXYSILICATE		10	0.916	1.412	60	ISODODECANE	Soft
	ISODODECANE							

(Not specific values)

## 16 Silicone Powders

Parameter Grade	INCI	Appearance	Volatile Content 105°C/3h %	True Specific Gravity	Average Particle Size µm	Hardness Durometer A
<b>KMP-590</b>	POLYMETHYLSILSESQUIOXANE	White spherical powder	1.0	1.32	2	—
<b>KMP-591</b>	POLYMETHYLSILSESQUIOXANE	White spherical powder	1.0	1.32	5	—
<b>KMP-598</b>	DIMETHICONE/ VINYL DIMETHICONE CROSSPOLYMER	White spherical powder	0.1	0.97	13	30
<b>KMP-400</b>	DIMETHICONE/ VINYL DIMETHICONE CROSSPOLYMER	White amorphous powder	0.1	0.97	30	30
<b>KSP-100</b>	VINYL DIMETHICONE/ METHICONE SILSESQUIOXANE CROSSPOLYMER	White spherical powder	0.1	1.00	5	30
<b>KSP-101</b>	VINYL DIMETHICONE/ METHICONE SILSESQUIOXANE CROSSPOLYMER	White spherical powder	0.1	0.98	12	30
<b>KSP-102</b>	VINYL DIMETHICONE/ METHICONE SILSESQUIOXANE CROSSPOLYMER	White spherical powder	0.1	0.98	30	30
<b>KSP-105</b>	VINYL DIMETHICONE/ METHICONE SILSESQUIOXANE CROSSPOLYMER	White spherical powder	0.1	0.99	2	75
<b>KSP-300</b>	DIPHENYL DIMETHICONE/VINYL DIPHENYL DIMETHICONE/SILSESQUIOXANE CROSSPOLYMER	White spherical powder	0.1	1.11	5	40

(Not specific values)

## 17 Powder Treatment Agents

Parameter Grade	INCI	Viscosity 25°C mm <sup>2</sup> /s	Specific Gravity 25°C	Refractive Index 25°C	Volatile Matter 105°C/3h %
<b>KF-99P</b>	METHICONE	20	1.00	1.396	< 5
<b>KF-9901</b>	HYDROGEN DIMETHICONE	20	0.97	1.398	< 5
<b>KF-9908</b>	TRIETHOXYSIPLYLETHYL POLYDIMETHYLSILOXYETHYL DIMETHICONE	60	0.97	1.412	< 5
<b>KF-9909</b>	TRIETHOXYSIPLYLETHYL POLYDIMETHYLSILOXYETHYL HEXYL DIMETHICONE	45	0.96	1.415	< 5
<b>KP-574</b>	ACRYLATES/TRIDECYL ACRYLATE/TRIETHOXYSIPLYLPROPYL METHACRYLATE/DIMETHICONE METHACRYLATE COPOLYMER	300	0.98	1.416	< 5
<b>AES-3083</b>	TRIETHOXYCAPRYLYLSILANE	2	0.88	1.417	Boiling point 100°C/2mmHg

(Not specific values)

## 18 Inorganic Powder Dispersions

Parameter Grade	INCI	Powder	Solvent	Powder Content wt %	Appearance	Viscosity 25°C mPa·s	Specific Gravity 25°C
<b>SPD-T5</b>	CYCLOPENTASILOXANE	TiO <sub>2</sub>	KF-995	40	White-light gray fluid	< 4,000	1.3
	TITANIUM DIOXIDE						
	POLYGLYCERYL-3 POLYDIMETHYLSILOXYETHYL DIMETHICONE						
	ALUMINUM HYDROXIDE						
	STEARIC ACID						
<b>SPD-Z5</b>	ZINC OXIDE	ZnO	KF-995	60	White-light yellow fluid	< 4,000	1.7
	CYCLOPENTASILOXANE						
	POLYGLYCERYL-3 POLYDIMETHYLSILOXYETHYL DIMETHICONE						
	TRIETHOXYSILYLETHYL POLYDIMETHYLSILOXYETHYL HEXYL DIMETHICONE						

(Not specific values)

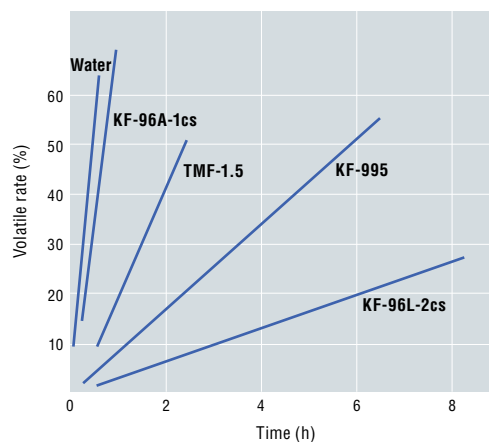
## Dimethyl silicone fluid soluble in various solvents

KF-96 (dimethyl silicone fluid) : Solubility of medium viscosity grades  
 Note that low viscosity grades of KF-96 (5mm<sup>2</sup>/s and below) also dissolve in ethanol and other solvents, so check prior to use.

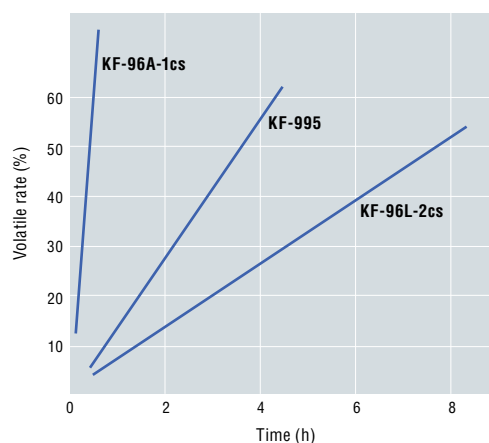
Solvent	Result
Solvent naphtha	Soluble
Industrial Gasoline	Soluble
Mineral Spirits	Soluble
Kerosene	Soluble
Cyclohexane	Soluble
n-Hexane	Soluble
n-Heptane	Soluble
Ethyl Ether	Soluble
Diisopropyl Ether	Soluble
Hexyl Ether	Soluble
Ethyl Acetate	Soluble
Butyl Acetate	Soluble
Isopropyl Ether	Soluble
Isopropyl Laurate	Soluble
Isopropyl Palmitate	Soluble
Isopropyl Myristate	Soluble
Methyl Ethyl Ketone	Soluble
Methyl Isobutyl Ketone	Soluble
Lauryl Alcohol	Soluble
Acetone	Partially Soluble
Dioxane	Partially Soluble
Butanol	Partially Soluble
2-Ethylhexanol	Partially Soluble
Amyl Acetate	Partially Soluble
Glacial Acetate Acid	Partially Soluble
Naphthene-based Lubricating Oils	Partially Soluble
Methanol	Insoluble
Ethanol	Insoluble
Cyclohexanol	Insoluble
Ethylene Glycol	Insoluble
Carbitol	Insoluble
Glycerin	Insoluble
Diethylene Glycol Stearate	Insoluble
Propylene Glycol	Insoluble
Liquid Paraffin	Insoluble
Paraffin Wax	Insoluble
Petrolatums	Insoluble
Lubricating Oils	Insoluble
Fatty Acid (other than Glacial Acetic Acid)	Insoluble
Animal and Vegetable Oils	Insoluble
Methyl Phthalate	Insoluble
Water	Insoluble

## Volatile Data

Volatility at 25°C (measured by filter paper method)

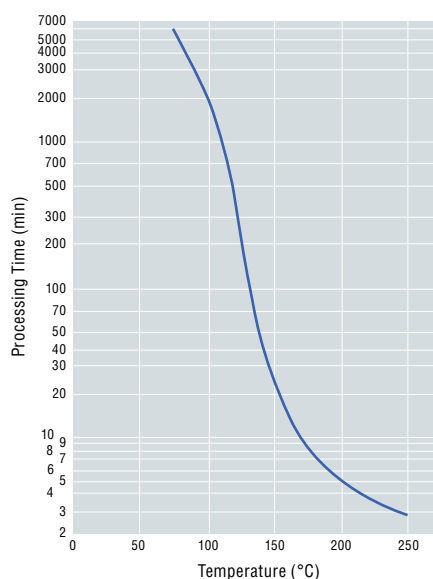


Volatility at 37°C (measured by filter paper method)



## Bake-on Temperature and Processing Time Methyl Hydrogen Polysiloxane

(without solvent)



\* Testing Condition  
 Processing Liquid: 10 % KF-99P Solution  
 Testing Substrate: Glass

## Solubility Dimethicone

### KF-96L-KF-96

Composition Rate Silicone Fluid Cosmetic Ingredient	Silicone Fluid : Cosmetic Ingredient					
	10:1		1:1		1:10	
	KF-96L*	KF-96	KF-96L*	KF-96	KF-96L*	KF-96
Cetyl Alcohol	S	I	S	I	S	I
Bees Wax	I	I	I	I	S	I
Lanolin	I	I	I	I	I	I
Glycerine	I	I	I	I	I	I
Liquid Paraffin	S	I	S	I	S	I
Stearic Acid	P	I	I	I	I	I
Squalane	S	S	S	I	S	I
Jojoba Oil	S	I	P	I	P	I
Vaseline	I	I	I	I	S	I

S: Soluble P: Soluble at 60 to 80°C I: Insoluble

\* KF-96L: KF-96A (1 – 5)

## Compatibility (20%) Polyether Modified Silicone Fluid, Polyglycerin Modified Silicone Fluid

	KF-6011 KF-6011P	KF-6012	KF-6013	KF-6015	KF-6016	KF-6017 KF-6017P	KF-6028 KF-6028P	KF-6038	KF-6043	KF-6100	KF-6104	KF-6105
KF-96A-6cs (Dimethicone)	I	I	PS	I	S	S	S	S	I	PS	S	S
TMF-1.5 (Methyl Trimethicone)	I	I	I	S	S	S	S	S	I	PS	S	S
KF-995 (Cyclopentasiloxane)	I	I	I	S	S	S	S	S	I	PS	S	S
KF-56A (Diphenylsiloxy Phenyl Trimethicone)	S	S	PS	S	S	S	S	S	I	I	S	S
Mineral Oil	I	PS	I	I	PS	PS	PS	S	I	I	I	S
Isotridecyl Isononanoate	I	S	S	S	S	S	S	S	I	PS	S	S
Triethylhexanoin	S	S	S	S	S	S	S	S	S	PS	PS	S
Ethyl Alcohol	S	S	S	S	S	S	S	PS	S	S	PS	PS
Isopropyl Alcohol	S	S	S	S	S	S	S	S	S	S	S	S
Propylene Glycol	S	I	S	I	I	S	I	PS	S	S	I	I
1, 3-Butylene Glycol	S	I	S	I	I	S	I	PS	S	S	PS	PS
Glycerin	I	I	I	I	I	I	I	PS	I	S	PS	PS
Water	S	S	I	I	I	I	I	I	S	G	I	I

S: Soluble PS: Partially Soluble I: Insoluble G: Gel

## Handling Precaution

### Quality, Storage and Handling

- Since changes in quality may occur due to exposure to heat, humidity, light or acidic or alkaline environments, be sure to close tightly and store in a cool, dark location.
- Do not leave products in an open state while working.
- Please read the Material Safety Data Sheet (MSDS) before use. MSDS can be obtained from our Sales Department.

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