

# Silicone Dispersants

Shin-Etsu Silicone offers an extensive line of surfactants with different structures and functions. Now we have new surfactant with outstanding powder dispersibility KF-6106 to our existing polyglycerin modified silicone series with KF-6104 and KF-6105 ! Together with silicone acrylate KP-578, we can offer more powder dispersing solutions.

## Polyglycerin Modified Silicone

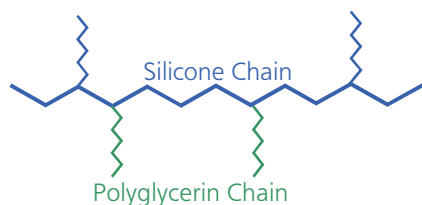
**NEW** KF-6106

## Silicone Acrylate

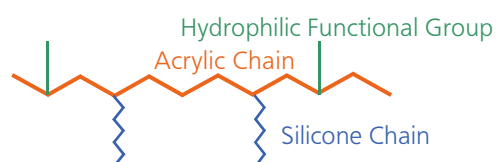
KP-578

### ■Molecular Model

Branched silicone with graft polyglycerin chain



Acryl polymer with graft silicone chain



### ■Feature

Both types have **good powder dispersibility** in silicone fluids and other various oils, thanks to silicone branch. KF-6106 and KP-578 can **disperse powders stably and uniformly**; improve **stability** and **transparency** of your products.

They are functional materials which can be used for various applications including sunscreen, liquid make-up, powder make-up and lipsticks.

### ■INCI

- KF-6106** POLYGLYCERYL-3 POLYDIMETHYLSILOXYETHYL DIMETHICONE
- KP-578** ACRYLATES/ETHYLHEXYL ACRYLATE/DIMETHICONE METHACRYLATE COPOLYMER

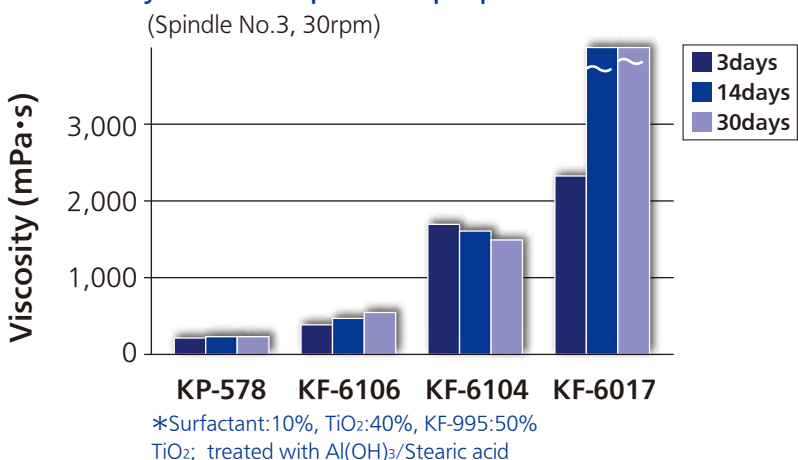
### ■Solubility(20%)

	Polyether Modified Silicone	Polyglycerin Modified Silicone			Silicone Acrylate
	KF-6017	KF-6104	KF-6105	<b>KF-6106</b>	<b>KP-578</b>
KF-995	S	S	S	S	S
TMF-1.5	S	S	S	S	S
DM-FLUID-A-6cs	S	S	S	S	S
Isododecane	S	S	S	S	S
Mineral Oil	D	D	S	D	D
Squalane	D	D	S	D	D
Triethylhexanoin	S	D	S	D	S
Isotridecyl Isononanoate	S	S	S	S	S
Neopentyl Glycol Diethylhexanoate	S	S	S	S	S

S:Soluble D: Disperse

## ■ Dispersibility of Superfine Titanium Dioxide

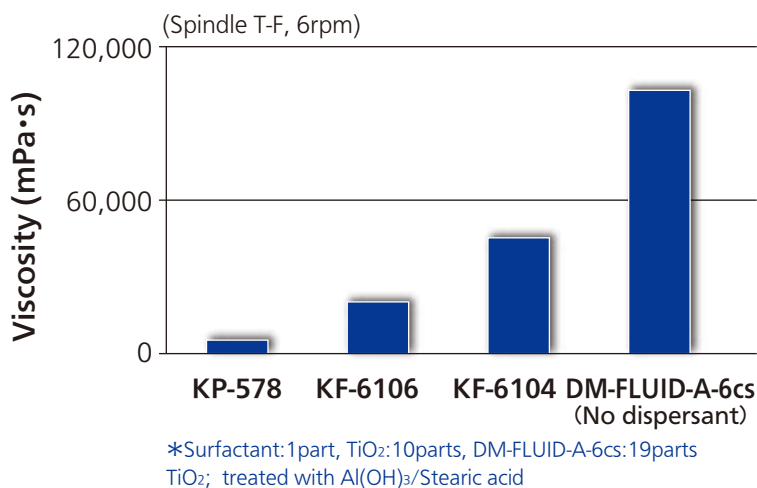
~ Viscosity of TiO<sub>2</sub> dispersions prepared with Bead-Mill ~



When superfine titanium dioxide is dispersed into silicone fluid with bead-mill, KF-6106 and KP-578 provide low viscosity dispersions and keep their viscosity low even for a month. They contribute to excellent powder dispersibility and stability of products.

~ Viscosity of TiO<sub>2</sub> pastes prepared with Roll-Mill ~

Even when superfine titanium dioxide pastes are prepared with roll-mill, KF-6106 and KP-578 produce pastes with remarkably lower viscosity compared to the case without any dispersants. They make easy to combine powders into products.



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<b>Gunma Complex</b>	ISO 9001	ISO 14001
	(JQCA-0004)	(JQCA-E-0002)
<b>Naoetsu Plant</b>	ISO 9001	ISO 14001
	(JQCA-0018)	(JQCA-E-0064)
<b>Takefu Plant</b>	ISO 9001	ISO 14001
	(JQA-0479)	(JQA-EM0298)

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