



## Technical Data Sheet

# Silaplane™ Bi-terminal Reactive Siloxanes FM-44series

### Features and benefits

- Improve physical properties of organic resins
- Low level of chemical impurities
- Mold release property
- Water/Oil repellency
- Gas permeability (Oxygen, CO<sub>2</sub>, CH<sub>4</sub>, etc.)

### Application

Si Hydrogel Contact Lenses, Functional Paints, Artificial Leather

### Description

JNC's bi-terminal Silaplane™ products copolymerize with various monomers and polymers to form block copolymer. Physical properties can be improved by introducing siloxane chains into the organic resin.

### Structure

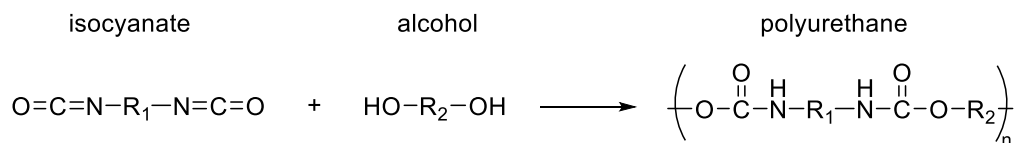
Group	Chemical structure
Hydroxy	

### Typical Properties

	Units	FM-4411	FM-4421	FM-4425
<b>Molecular Weight (<i>M<sub>n</sub></i>)</b>		1,000	5,000	10,000
<b>Appearance</b>		Clear Liquid	Clear Liquid	Clear Liquid
<b>Specific Gravity (25 °C)</b>		0.97	0.98	0.97
<b>Viscosity (25 °C)</b>	mm <sup>2</sup> /s	30-40	100-125	250-400

## Recommended usage

Resin modification is possible by mixing and heating the FM-44 series with solvents and monomers. When the FM-44 series is used with isocyanates as monomers, silicone-modified polyurethanes can be obtained.



## Packaging

	FM-4411	FM-4421	FM-4425
Package (Can)	Net 1 kg, 16 kg	Net 1 kg, 16 kg	Net 1 kg, 16 kg

## Reactive groups

Effective for modifying urethane resins and polyesters.

## Solubility(solvent)

Solvent	FM-4411	FM-4421	FM-4425
Toluene	✓	✓	✓
Acetone	✓	✓	—
THF	✓	✓	✓
Butyl acetate	✓	✓	✓
DMAC	✓	—	—
Ethanol	✓	✓	—
Methanol	✓	—	—

✓ ; Soluble, — ; Insoluble

## Conditions for storage

Please keep containers tightly closed in a dry, cool, and well-ventilated place.

## Precautions for safe handling

SAFETY INFORMATION IS INCLUDED IN SAFETY DATA SHEET. READ SAFETY DATA SHEET AND CONTAINER LABELS, BEFORE USING PRODUCTS.

**Contact Information**  
**JNC Corporation**  
**IT and Materials Div.**

<https://www.jnc-corp.co.jp/english/product/p-material/silicone.html>

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