

RHODORSIL®**RHODORSIL® OILS
47 V 5 000 to 47 V 1 000 000
HIGH VISCOSITY SILICONE OILS**

December 1996

TECHNICAL DATA SHEET
Cancels and replaces SIL 92 165 3

Description **RHODORSIL OILS 47 V 5 000 to 47 V 1 000 000** viscosities: (5 000 - 10 000 - 12 500 - 30 000 - 60 000 - 100 000 - 150 000 - 200 000 - 300 000 - 500 000 - 600 000 - 1 000 000) are dimethylpolysiloxane polymers with linear chains.

Special features

- Excellent thermal stability
- Good resistance to combustion
- Good dielectric properties
- Low freezing point
- Low surface tension
- High compressibility
- Good oxidation resistance
- Absence of ageing under exposure to weather conditions
- Low variation of viscosity with temperature
- Good shear resistance
- Non miscible with most of organic materials
- Soluble in aromatic, aliphatic and chlorinated solvents
- Insoluble in water and alcohols

Applications **RHODORSIL OILS 47 V 5 000 to 47 V 1 000 000** can be used as:

- antiadherent agents : mould release of plastics and metal castings,
- lubrifants : lubrication of elastomers and plastics on metal,
- hydraulic damping fluids,
- additives in maintenance products (wax polishes, floor and furniture polishes...).

Characteristics

Appearance..... clear - colourless liquids

Viscosity at 25°C mm²/s approx..... 5 000 to 1 000 000

Density at 25°C approx..... 0.973

Flash point (open cup) °C..... > 300

Fire point °C..... > 350

Pour point °C approx..... - 45

Refractive index at 25°C approx..... 1.404

Surface tension at 25°C nN/m approx..... 21.1

Vapour tension at 200°C Pa, approx..... 1.33

Characteristics

Expansion coefficient between	
• 25 and 100°C cm ³ /cm ³ °C approx.....	9.45 10 ⁻⁴
Specific heat between 40 and 200°C	
• J/g °K approx.....	1.50
• Cal/g °K approx.....	0.36
Thermal conductivity W/m. °K approx.....	0.16
Viscosity/temperature coefficient (1) approx.....	0.62
Dielectric strength at 25°C KV/mm approx.....	18
Permittivity at 25°C approx.....	2.80
Dielectric dissipation factor tg	
• at 25°C and 100 Khz approx.....	1. 10 ⁻⁴
D.C. resistivity at 25°C cm approx.....	1.10 ¹⁵

$$(1) \text{ Viscosity/temperature coefficient} = 1 - \frac{\text{Viscosity at } 99^{\circ}\text{C}}{\text{Viscosity at } 38^{\circ}\text{C}}$$

Packaging

RHODORSIL OILS 47 V 5 000 to 47 V 1 000 000 are supplied in 25, 200 kg drums, in 1000 kg containers or in tankers.

Storage and shelf life

When stored in its original unopened packaging at a temperature of between -20 and + 50°C, **RHODORSIL OILS 47 V 5 000 to 47 V 1 000 000** may be stored for up to 36 months from its date of manufacture (expiry date). Comply with the storage instructions and expiry date marked on the packaging.
Past this date, Rhodia Silicones no longer guarantees that the product meets the sales specifications.

Safety

See safety data sheet of **RHODORSIL OILS 47 V 5 000 to 47 V 1 000 000**.

Warning to users

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards infringement of or prejudice to third party rights through the use of our products.
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Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorisations.
Users are requested to check that they are in possession of the latest version of this document and RHODIA CHIMIE is at their disposal to supply any additional information.



Silicones Europe

19 avenue Georges Pompidou - F-69486 LYON CEDEX 03
Tél. (33) 4 72 13 19 00 - Fax (33) 4 72 13 19 88 - Télécx 305111 F

Rhodia Chimie - Société Anonyme au capital de 2.883.675.200 F - RCS Nanterre B 642 014 526

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