Technical Data Sheet



KYNOS SILICON OILS

Silicon Oils

KYNOS LUBRICATION PRIVATE LIMITED

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SILICON OIL: Technical Grade Silicon Oil.

Technical Grade Silicon Oil is a high-performance, synthetic lubricant made from polydimethylsiloxane (PDMS) and other silicon-based compounds. This versatile oil offers excellent thermal stability, low viscosity, and resistance to oxidation, making it suitable for a wide range of industrial applications.

It provides effective lubrication in high-temperature environments, reduces friction, and minimizes wear on machinery and equipment. Technical Grade Silicon Oil is also water-repellent and has excellent dielectric properties, making it ideal for use in electrical and electronic applications.

It is clear, white, inert and odourless dimethyl polysiloxane fluids. The actual viscosity is controlled within +5% of the desired viscosity. These fluids are manufactured in the viscosity range from 20 cps to 300.000 cps.

In chemical structure Silicon Oils are quite different from other fluids having a backbone of siliconoxygen linkage. The advantage of this is a linkage much stronger than a typical carbon-carbon chain and is more resistant to attack by temperature extremes, oxidation, shear stresses and chemicals than other similar organic fluids and also show good dielectric properties Silicon Oils are soluble in hydrocarbon solvents, chlorinated hydrocarbon solvents and low molecular weight aromatic solvents. They have limited solubility in alcohols, ethers, acetone and glycols (solubility here depending on viscosity).

Applications

- Cosmetics and pharmaceuticals (Creams/lotions/hair care contraceptives)
- Polishes high gloss for automobile and furniture)
- Release agent (plastic/rubber/non- ferrous die casting)
- Liquid springs and shock absorbers
- Heat transfer, Power transmission, Rust Prevention, Hydraulic Fluids.
- Dielectric Fluids, Damping, Water repellence for aerated cement slabs/bricks
- Paint and coating additives
- Lubricants
- Textile finishing
- Spinneret cleaner

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Benefits

- > The unique chemical structure permits silicone fluids to perform in applications where other fluids are not suitable.
- > Low viscosity/temperature coefficient: they exhibit a smaller degree of change over a wider temperature range than petroleum oils (over 50 times more constant).
- > Thermal stability: silicone fluids show excellent stability when exposed to high temperatures. They are stable from -57 °C to 200 °C for extended periods and can exceed this for short periods
- > Oxidation stability: oxidation stability of these fluids is excellent up to 200 °C where sludging is eliminated that occurs with mineral oils above 150 °C
- Chemical inertness: they are chemically inert to most common materials

Typical Performance Data

Properties	TECHNICAL GARDE SILICON OIL								
	20	50	100	350	500	1000	10000	60000	1000000
Appearance, Clarity & Odour	Colourless, Clear & Odourless								
Specific Gravity @ 25 °C	0.940	0.959	0.965	0.973	0.970	0.974	0.975	0.977	0.976
Nominal Viscosity @ 25 °C, cPs	20	50	100	350	500	1000	10000	60000	1000000
Flash Point, °C	230	280	>300	>300	>300	>300	>300	>300	>300
Pour Point, °C	-60	-55	-55	-50	-50	-50	-50	-50	-40
Refractive Index @25 °C	1.405	1.402	1.405	1.405	1.403	1.405	1.405	1.405	1.404
Auto Ignition Temperature, °C	>400	>400	>400	>400	>400	>400	>400	>400	>400
Dielectric Strenght @ 25 °C volts/mil	ı	400	400	400	ı	400	-	-	-
Volume Resistivity @ 25 °C, ohm-cm	-	1.0 x 1015	1.0 x 1015	1.0 x 1015	-	1.0 x 1015	-	-	-

^{*}All performance data on this Technical Data Sheet are indicative only and may vary during production.