

JIT SILICONES +

Transformer Oil

JIT Silicone Transformer Oil

- High dielectric strength fluid
- Excellent dielectric coolant
- High Flash point >300°C
- Self-extinguishing
- Chemically inert
- Low toxicity & bioaccumulation
- VOC exempt
- High thermal oxidation resistance
- Compatible with most existing transformer insulation systems
- Environmentally superior alternative to PCB's as transformer fluid
- Longer service life than conventional transformer oils



Standard package sizes:

ITEM #	SIZE	NOTE
STF440DRUM	55 gallon drum	Metal Drum

JIT Silicones +

P.O. Box 24
Mars, PA 16046
Phone: (855) JIT-PLUS (855) 548-7587

www.jitsiliconesplus.com

Available from:

JIT Silicone Transformer Oil

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Technical Data

JIT *Silicone Transformer Oil (JIT STO)* is a 100% linear Polydimethylsiloxane fluid (CAS# 63148-62- 9) with a viscosity of 50cSt (centistoke) @ 25°C. JIT STO is formulated specifically for use as a dielectric fluid and dielectric coolant in electrical transformers. Unlike conventional polydimethylsiloxane fluids, JIT STO is formulated to contain < 50ppm water content to ensure the highest degree of dielectric strength and stability. JIT STO is characterized by its high dielectric strength, wide service temperature range, high flash point, low vapor pressure, low viscosity change at extremely high and low temperatures, and inertness to virtually all substrates *. It contains no additives (such as thermal stabilizers). Ultimately, JIT STO will prolong the service life of the transformer and reduce maintenance. JIT STO is an environmentally safe replacement for PCB containing askarels as the dielectric coolant for liquid-filled transformers. Its high thermal stability makes it a good choice for transformers that are located indoors or next to buildings where a thermally stable fluid is more critical. designed to perform at temperatures from -75°F (-60°C) to 350°F (177°C), & intermittently to 400°F (204°C)

Typical Properties - As Supplied

Parameter	Unit	Value
Physical Properties:		
Appearance		Crystal clear fluid
Density @25C	kg/dm3	0.96
Viscosity @25C	mm2 sec	50(cst)
Water content	ppm	<50
Refractive Index		1.404
Electrical Properties:		
Dielectric Breakdown voltage	KV	50
Permittivity @25C, 50Hz		2.7
Dissipation factor @25C, 50Hz		0.0001
Volume resistivity @25C	ohm cm	1.0 x 10 ¹⁴
Thermal Properties:		
Flash point (open cup)		>300°C/572°F
Fire point (open cup)		>370°C/698°F
Specific heat	KJ/kg.K	1.51
Specific heat	cal/gm°C	3.7 x 10 ⁻⁴
Thermal conductivity	W(m K)	0.151
Oxygen index	TDLOI	21.4
Coefficient of Expansion	cc/cc/°C	10.55 x 10 ⁻⁴

JIT STO meets both International Electrotechnical Commission IEC 836 "Specifications for silicone liquid for electrical purposes" (Silicone Fluid Type T-1) and ASTM D 4652 "Silicone Fluids for Electrical Insulation" specifications for repair or top-off of existing liquid filled units.

These standards cover both the physical and electrical properties of fluid suitable for dielectric applications. JIT STO has a fire point exceeding the requirements of these documents and is within the IEC 1100 class with lowest heat of combustion. Silicone Transformer Oil presents a much lower fire hazard than other transformer fluids. It is difficult to ignite, but if ignited, it will product less heat and smoke. It will virtually extinguish itself when external heat source is removed

Usable Life & Storage

When stored at or below 32°C (89.6°F), this product has a minimum usable life of 60 months from date of production.

Handling Precautions - See SDS Sheet

Limited Warranty - Please Read Carefully

The information contained herein is offered in good faith and is believed to be accurate. However, Because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that JIT Silicones + (JIT) products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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