

GE
Advanced Materials

Specialty Silicone Greases and Compounds



Product Selector Guide



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Specialty Silicone Greases & Compounds selector guide

Typical Features

Potential Applications

Silicone Valve & O-ring Lubricant TSK5200

- Stiff grease like translucent silicone compound
 - Service temperatures between -50 ~ 200°C
 - Meets AS/NZS 4020:2002 for use in contact with potable water (cold and hot water applications up to 100°C)
 - Rated suitable for incidental food contact*
 - Resistance to non-silicone oils, aqueous solutions of inorganic salts, dilute acids and alkalis, mineral oils and common gases
 - Oxidation stability - resistant to gumming or carbonization
 - No swelling effect on most rubbers and plastics
 - 100g tube and 1kg can
- Rubber and plastic O-ring gaskets and seals including water taps for use in contact with drinking water
 - Sealant for outdoor applications such as utilities and marine
 - Helps prevent gaskets from sticking to metallic surfaces, provides resistance to weathering and degrading
 - Lubrication of flow meter bearings, fire extinguisher valves, pressure valves, water treating equipment
 - Dampening material used in dashpots and other electrical cushioning applications
 - Chemical protective coating

Electrical Insulating Silicone Compound TSK551

- Non-melting, odourless translucent green electrical insulating compound with good dielectric strength
 - Adheres to dry metal, ceramic, rubber, and plastic
 - Moisture, dust, salt, and other atmospheric contaminant resistance
 - Suitable for service temperatures between -50 ~ 200°C
 - Thermal oxidation and chemical stability
 - 100g tube, 1kg can, and 4kg pail
- Flame-proof enclosures
 - Sealing against moisture in ignition systems in automotive, aerospace and marine applications
 - Disconnect junctions in electrical wiring systems
 - Cable connectors and battery terminal sealing
 - Lubricant for switches, O-rings, and enclosure door seals
 - Electrical assemblies and terminals for various metal on plastic or rubber combinations

Thermally Conductive Silicone Compound YG6111

- Metal oxide filled white silicone compound with good thermal conductivity
 - Non melting
 - Low volatility (D3-D10 siloxane) - 100ppm and low bleed
 - Service temperatures between -50 ~ 200°C
 - Compatible with most plastics - ABS, PBT, PPS, PC, Nylon 66, and NBR
 - 200g tube, 1kg can, and 20kg pail
- Thermal coupler for heat sinks, semiconductor devices, base and mounting studs of transistors, diodes, silicon controlled rectifiers
 - High voltage corona suppressant
 - Non-flammable coating in connections for flyback transformers in TVs and similar applications

Silicone Release Compound TSM650

- Translucent white silicone release agent
 - Stable in service temperature range of -40 ~ 200°C
 - Mould release agent without carbonaceous deposits
 - Inert to most materials, and suitable for plastic, rubber, metals, and adhesives
 - Rated suitable for incidental food contact*
 - 180g tube, 4kg and 15kg pail
- Release agent for adhesives and glue on saw blades and chains
 - Release agent for plastic film packaging machines
 - Rubber lubricant and preservative
 - Release agent for plastic extruders and processing equipment
 - Cable pulling lubricant to draw rubber covered cables through conduits
 - Foundary moulds and patterns with reduced maintenance, minimized scrap with improved appearance of moulded part

High Voltage Insulating Silicone Compound TSK550

- Ready to use grease-like non-tracking coating
 - Good dielectric properties and adhesion to porcelain and glass insulators
 - Service temperatures between -50 ~ 200°C
 - Arc resistance for protection against glaze damage of insulators
 - 100g tube, 1kg can, and 4kg pail
- Long-term resistance to water filming and flash over of glass and porcelain electrical insulators
 - Water erosion, dust, salt, and atmospheric contaminant resistant protection on insulators
 - UV resistance and corona discharge protection on insulators

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Potential Applications

Silicone Grease for Light Lubrication TSK5411M

- Lithium soap thickened silicone fluid based grease
- Service temperatures between -50 ~ 200°C
- Rated suitable for incidental food contact*
- Good oxidation resistance
- Good water wash out resistance
- Chemically inactive and non-corrosive
- Low starting and running torque at low temperatures
- 100g tube, 1kg can, and 18kg pail
- Light-duty lubrication of motors, pumps, and fan bearings
- Light-duty lubrication of gears and seals
- Corrosion protection of rotating equipment at low to medium load and speeds
- Moisture and dust protection for ignition systems

Silicone Grease for Plastic Lubrication TSK5450

- Lubricating grease with silicone fluid and PTFE solid lubricants
- Operating temperature range of -50 ~ 200°C
- Rated suitable for incidental food contact*
- Compatible with most plastics - polyacetal, polystyrene, polycarbonate, ABS, PVC, phenolic resin
- Low volatility
- 100g bottle, 1kg can, and 20kg pail
- Light lubrication of plastic components for automotive electronics systems
- Plastic gear lubrication in office equipment, household appliances, and consumer electronics
- Lubrication of electrical connectors, volume sliders

Low Temperature & Pneumatic O-ring Silicone Lubricating Grease TSK5421L

- Lithium soap thickened silicone fluid based grease
- Service temperatures between -60 ~ 180°C
- Good oxidation resistance
- 100g tube and 1kg can
- Lubrication of conveyor bearings in freezers
- Lubricant for dynamic O-rings in pneumatic systems
- Sensitive instruments requiring low-friction greases
- Optical equipment
- Lubrication of motors, pumps, and fan bearings

High Temperature Silicone Lubricating Grease TSK5422L and TSK5422M

- Lithium soap thickened silicone fluid based grease
- TSK5422L (light consistency)
- TSK5422M (medium consistency)
- Service temperatures between -30 ~ 200°C
- Good oxidation resistance at high temperatures
- Good water wash out resistance
- 180g tube, 1kg and 18kg pail
- Lubrication of motors, pumps, and fan bearings, including use in kilns and ovens
- Bearings in high temperature conveyors

High Vacuum Silicone Grease

- Sealing capability under high-vacuum and pressure up to 10^{-4} Pa
- Non-melting, non-gumming, non-oxidizing, and low volatiles
- Service temperatures between -50 ~ 200°C
- Rated suitable for incidental food contact*
- Good resistance to hot and cold water
- Unaffected by most mineral oils, many organic compounds, common gases, aqueous solutions of organic salts, dilute acids and alkalis
- 100g tube and 1kg can
- Sealing and lubricant in chemical processing equipment
- Sealing vacuum and pressure systems
- Lubrication of synthetic rubber gaskets and seals in high temperature applications
- Lubrication of O-rings on binoculars, telescopes
- Helps prevent fogging of delicate lenses

*Contact a GE Advanced Materials sales representative or distributor for certification details.

Typical Properties**

Properties	TSK550	TSK551	TSM650	TSK5200 Valve & O-ring Lub.	TSK5411M	TSK5421L	TSK5422L	TSK5422M	TSK5450	YG6111	High Vacuum Grease
Appearance	Translucent White	Green	White	Translucent White	White	White	Translucent Yellow	Translucent Yellow	Off-White Translucent	White	Translucent White
Service Temp. Range °C	-50 ~ +200	-50 ~ +200	-50 ~ +200	-50 ~ +200	-50 ~ +200	-60 ~ +180	-30 ~ +200	-30 ~ +200	-50 ~ +200	-50 ~ +200	-50 ~ +200
Specific Gravity (25°C)	1.03	1.03	1.04	1.00	1.00	1.00	1.00	1.00	1.14	2.45	1.00
Penetration* (worked) (25°C)	220	220	250	230	280	290	305	265	360	310	230
Evaporation (150°C, 24h) %	0.2	0.3	0.2	0.6	0.1	0.5	0.2	0.1	0.1	0.1	0.6
Bleed (150°C, 24h) %	1.5*	1*	0.1	0*	3	4	4	2.6	-	0.4*	0*
Food Contact Recognition ¹	-	-	Yes	Yes	Yes	-	-	-	Yes	-	Yes
Drop Point °C	none	none	none	none	207	211	223	224	none	none	none
Washout Resistance ² %	-	-	-	-	3.0	7.0	3.0	3.0	-	-	-
Oxidation Stability ³ MPa	-	-	-	-	0.08	0.00	0.00	0.00	-	-	-
Dielectric Strength kV/2.5mm	8	8	-	-	-	-	-	-	-	-	10
Dielectric Constant (60Hz)	2.8	2.8	-	-	-	-	-	-	-	5.0	-
Dissipation Factor (60Hz)	0.0002	0.0002	-	-	-	-	-	-	-	0.006	-
Arc Resistance ⁴ sec	120<	120<	-	-	-	-	-	-	-	-	-
Volume Resistivity ⁵ MΩ·m	2.0x10 ⁷	2.0x10 ⁷	-	-	-	-	-	-	-	2.0x10 ⁶	-
Volatile Siloxanes (D3-D10) ppm	-	-	-	100	-	-	-	-	150	100	100
Packaging	100g tube	●	●	●	●	●	●	●			●
	100g bottle								●		
	180g tube			●							
	200g tube									●	
	1kg can	●	●	●	●	●	●	●	●	●	●
	4kg can	●	●	●							●
	15kg pail			●							
	18kg pail				●		●	●			
	20kg pail								●	●	

¹Rated suitable for incidental food contact. Contact a GE Advanced Materials sales representative or distributor for certification details. ²(79°C, 1h) ³(150°C, 100h) ⁴ASTM D-495 ⁵MIL-S-8660B

*JIS K 2220

**Typical property data values should not be used as specifications

Silicone Greases and Compounds for:

- **Cost Savings**
- **Extension of Equipment Life**
- **Extended Lubrication Intervals**



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GE Advanced Materials-Silicones
175 Hammond Road Dandenong 3175 Australia
Toll Free No. 1800 034 427 www.gesilicones.com

For further specialised Silicone Solutions contact our
Technical Support Team:

Tel: **03 9558 8898**

e-mail: sales@dcproducts.com.au

DC PRODUCTS PTY LIMITED

117/45 Gilby Road Mount Waverly 3149

Fax No. 03 9558 8892

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