

GE
Advanced Materials

Specialty Silicone Greases and Compounds



Product Selector Guide



imagination at work

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 carbonatious 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 atomospheric contaminant resistant protection on insulators
 - UV resistance and corona discharge protection on insulators

Specialty Silicone Greases & Compounds selector guide

Typical Features

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 kW/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**



imagination at work

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

Distributed by:

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF THE BUSINESSES MAKING UP THE GE ADVANCED MATERIALS UNIT OF GENERAL ELECTRIC COMPANY, ITS SUBSIDIARIES AND AFFILIATES, ARE SOLD SUBJECT TO GE ADVANCED MATERIALS' STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, GE ADVANCED MATERIALS MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING GE ADVANCED MATERIALS' PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN GE ADVANCED MATERIALS' STANDARD CONDITIONS OF SALE, GE ADVANCED MATERIALS AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of GE Advanced Materials' products, materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating GE Advanced Materials' products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of GE Advanced Materials' Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by GE Advanced Materials. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of General Electric Company or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.