



TSK550

High Voltage Insulating Silicone Compound

Product Description

TSK550 is a grease-like silicone compound that helps provide long-term resistance to water filming and flash over in outdoor applications such as electrical insulators. The compound helps protect against insulation deterioration resulting from particulate contamination that may occur from dust deposits, salt particles, or other types of contaminants carried in the air. The ability of surfaces to repel water and resist corona stress and ultra violet light can be enhanced by applying TSK550.

Electrical insulators, particularly when exposed to the elements, may become dirty with dust, smoke, or salt particles. Insulating performance may progressively decline without appropriate cleaning and maintenance. TSK550 serves to embed and envelope salt or dust particles on coated insulator surfaces, thereby contributing to cleanliness and water resistance of insulator surfaces. The arc resistance of TSK550 also contributes to protection against glaze damage of insulators when the coating's water repellent is significantly diminished and arcing occurs. Such protection helps allow for full utilization of the coating before recoating.

TSK550 is easy to spread, not stringy, and demonstrates good adhesion to properly prepared insulators.

Key Features and Typical Benefits

- Excellent dielectric properties
- Arc resistance
- Moisture resistance
- Wide operating temperature range: -50°C to 200°C

Potential Applications

- Salt and dust protection on electrical insulators
- Electrical connector insulation
- Corona discharge protection

Typical Properties

Appearance		Translucent White
Specific Gravity (25°C)		1.03
Penetration (worked) ¹ (25°C)		220
Bleed ¹ (150°C, 24h)	%	1.5
Evaporation (150°C, 24h)	%	0.2
Base oil pour point	°C	-60
Melting Point		None
Volume Resistivity ²	MΩ·m	2.0 x 10 ⁷
Dielectric Strength ³	kV/0.25mm	8.0
Dielectric Constant (60 Hz)		2.8
Dissipation Factor (60 Hz)		0.0002
Arc Resistance ⁴	s	120<

¹JIS K 2220 ²MIL-S-8660B ³JIS C 2380 ⁴ASTM D-495

Typical property data values should not be used as specifications.

At GE Advanced Materials — Silicones, our versatile materials are the starting point for our creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications. We are helping customers solve

product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical devices. From

helping to develop safer tires and keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.



GE imagination at work

TSK550 Electrical Insulating Silicone Compound

Procedure for Application to Insulator

- Thoroughly clean and dry the insulator surface to remove traces of organics or cleaning agents.
- Apply TSK550 by hand, bristle, brush, or cloth.
- Apply to a thickness of 0.5 to 2mm. The dirtier the air, the thicker the coating layer should be.
- Coating should be applied under good weather conditions.

Life Expectancy and Reapplication

As the insulator surface becomes stained with foreign matter such as dust and salt, water repellency will deteriorate, leading to a decrease in the effectiveness of the silicone compound. Although useful life depends upon the thickness of the silicone compound and the amount of contamination, generally, performance will last from six months to two years. The need for reapplication can be should be determined by confirming surface water repellency every three to six months.

Handling and Safety

- Wear eye protection and protective gloves when handling the product.
- Use the product in a well-ventilated area.

Storage

- Store in a dark, cool place out of direct sunlight.
- Keep out of reach of children.

Shelf Life

- 18 months from date of manufacture when maintained under recommended storage conditions.

Packaging

- 180g tube available in cases of 20
- 1kg can available in cases of 10
- 4kg can available in cases of 4

Local Contacts

Regional Information	Phone	Fax
Australia / New Zealand GE Toshiba Silicones Australia Pty. Ltd. 175 Hammond Road, Dandenong VIC 3175, Australia	+613.9703.7200	+613.9706.7597
Pacific Headquarters GE Toshiba Silicones Co., Ltd. 6-2-31 Roppongi, Minato-Ku Tokyo 106-8550, Japan	+81.3.3479.5361	+81.3.3479.5391

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.

Copyright 2005 General Electric Company, all rights reserved