MOLYKOTE® 4 Electrical Insulating Compound

Silicone-based compound with semi-flowable consistency that exhibits excellent dielectric strength and electrical insulating properties

Features & benefits

- High dielectric strength and excellent electrical insulating properties
- Good adhesion to most dry materials, including metals, elastomers, polymers and ceramics
- Semi-flowable rheology may allow compound to enter complex geometries
- Good moisture resistance and water repellency
- Low volatility and evaporation
- Good oxidation stability
- Excellent low temperature performance and broad temperature range (-54°C to 200°C)
- Certified to NSF 51 and 61, meets 21 CFR 175.30, Kosher Pareve, Halal
- Material tested to AMS8660 Tables 1-4, see **Typical properties** table

Applications

Used as a lubricant and seal for cable connectors, battery terminals, rubber seals, elastomer and polymer O-rings, and assembly of various metal on polymer and metal on rubber combinations. A moisture proof seal for transportation and industrial applications including ignition systems, sealed electrical connectors, disconnect junctions, and terminals where a semi-flowable consistency material is appropriate. Consider using MOLYKOTE® 111 Compound or MOLYKOTE® 5 Compound if higher consistency material is needed related to electrical based applications or MOLYKOTE® 112 High-Performance Lube/Sealant for critical mechanical based applications.

How to use

MOLYKOTE® 4 Electrical Compound can be applied by hand, brushing or wiping into the application. Shear can impact the product rheology and cause increase in flow characteristics which can be a benefit in some applications where material needs to flow into complex geometries. If the application is not tolerant to variation in rheology characteristics, mechanical means of sealing or isolating the material is recommended. Designed automation dispensing is possible but should be validated at

Typical properties

Specification writers: These values are not intended for use in preparing specifications. Please contact your local MOLYKOTE® sales representative prior to writing specifications on this product.

Standard	Test	Unit	Typical
	Color		White, translucent
ASTM D217	Penetration unworked	mm/10	230
ASTM D217	Penetration worked 60,	mm/10	245
ASTM D217 AMS8660 4.6.3	Penetration worked 60, after 24 hrs at 204°C	mm/10	270
AMS8660.4.6.7	Bleed, 30 hrs at 204°C	%	4.5
AMS8660.4.6.7	Evaporation, 30 hrs at 204°C	%	1.0
AMS8660.4.6.8	Low temperature torque, -54°C		
	Starting torque	g-cm	700
	Running torque, 60 min	g-cm	200
AMS8660.4.6.5	Corrosive effects		
	Metals		Pass
	Non-metals		Pass
AMS8660.4.6.6	Volume Change NBR-L ASTM13226, max	%	7
AMS86604.6.8	Waterproof seal		Pass
AMS8660.4.6.3	Insolubility 8-day soak		Pass
AMS8660.4.6.10	Dielectric strength 0.05 inch gap	V/mil	350
AMS8660.4.6.11	Volume resistivity		
	23°C min	Ohm-cm	1x10^13
	177°C min		1x10^12

(1)ASTM: American Society for Testing and Materials. AMS: Aerospace Material Specifications.

Continued on next page.

customer prior to use due to high shear from pumps. Silicone compounds should not be applied to surfaces that require painting or coating.

Handling precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Usable life and storage

When stored in the original unopened containers, this product has a usable life of 60 months from the date of production.

Packaging

This product is available in different standard container sizes as shown on **molykote.com**. Detailed container size information should be obtained from your nearest MOLYKOTE® sales office or MOLYKOTE® distributor.

Typical properties, cont.

Standard[1]	Test	Unit	Typical
AMS8660.4.6.12	Dielectric constant		
	1kHz		2.8
	1MHz		2.8
	10MHz		2.8
AMS8660.4.6.12	Dissipation factor		
	1kHz		<0.0025
AMS8660.4.6.13	Arc resistance	Sec	285
AMS8660.4.6.14	Storage stability 6 months 38°C		Pass

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