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MOLYKOTE® 55 O-Ring Grease

Silicone-based grease for O-rings

Features

- Excellent oxidation resistance
- Good corrosion protection
- Wide service-temperature range: -65 to 175°C (-85 to 347°F)
- Compatible with many plastics and elastomers
- No intentional polytetrafluoroethylene (PTFE) or per- and polyfluoroalkyl substances (PFAS)

Composition

- Silicone oil
- Ester
- Lithium soap

Applications

Lubrication between rubber and metal parts in pneumatic systems in aircraft, automotive and general industrial applications.

DESCRIPTION

MOLYKOTE® 55 O-Ring Grease is a silicone-based material that helps ensure positive lubrication and sealing by slightly swelling rubber O-rings and seals. This product is heat-stable and oxidation-resistant and is serviceable from approximately -65 to 175°C (-85 to 347°F).

How to use

MOLYKOTE® 55 O-Ring Grease should be applied using brush, grease gun, or automatic lubrication system. MOLYKOTE® 55 O-Ring Grease can be used in centralized lubrication systems. Do not mix with other greases.

MOLYKOTE® 55 O-Ring Grease has been shown to swell natural rubber. However, compatibility of the lubricant may vary with the plasticizer content of specific materials (especially elastomers). Small-scale compatibility testing should be conducted prior to the use of this product in any application.

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(1)	Test	Unit	Result
	Color		Off-white
	NLGI consistency class		approx. 2
ASTM D217	Worked penetration	mm/10	290
ISO 2811	Density at 20°C (68°F)	g/cm^3	0.98
DIN 51 562	Base oil viscosity at 25°C (77°F)	mm^2/s	100
	Service temperature	°C	-65 to 175
		°F	-85 to 347
ASTM D566	Drop point	°C	220
		°F	428
ASTM D147880	Low temperature torque test at -65°C (-85°F)		
	Initial break-away torque	Nm	325 x 10^{-3}
	Torque after 20 minutes running time	Nm	35 x 10^{-3}
Coefficient of friction			
	Steel ball against plastic surface (POM) Ø ball = 12.7 mm, load = 6.3 N, v =10 mm/s, 24 hr	μ =	0.03
Resistance			
DIN 51 808	Oxidation resistance, pressure drop 100 hr, 99°C (210°F)	bar	0.1
Corrosion protection			
DIN 51 802	SKF-Emcor method – degree of corrosion		0
FED Std 791	Bleed, 24 hr at 150°C (302°F)	%	3.0
	Evaporation, 24 hr at 150°C (302°F)	%	1.4
ASTM D1264	Water washout resistance	%	4.2

(1)ASTM: American Society for Testing and Materials. ISO: International Standardization Organization. DIN: Deutsche Industrie Norm. FED: Federal Standard: Testing Method of Lubricants, Liquid Fuels and Related Products.

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MOLYKOTE® 55 O-Ring Grease should not be used with the following materials unless thoroughly tested for your specific application:

- Silicone rubber (SR)
- Polycarbonate (PC)
- Acrylonitrile-butadiene- styrene (ABS)
- Liquid oxygen (or other strong oxidizers)

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 at or below 32°C (90°F), MOLYKOTE® 55 O-Ring Grease has a shelf life of 60 months from date of manufacture. Refer to product packaging for “Use By” date.

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.

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