



# 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 <sup>(1)</sup>        | 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 <sup>3</sup>  | 0.98                   |
| DIN 51 562                     | Base oil viscosity at 25°C (77°F)                                                           | mm <sup>2</sup> /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 <sup>-3</sup> |
|                                | Torque after 20 minutes running time                                                        | Nm                 | 35 x 10 <sup>-3</sup>  |
| <b>Coefficient of friction</b> |                                                                                             |                    |                        |
|                                | Steel ball against plastic surface (POM) Ø ball = 12.7 mm, load = 6.3 N, v = 10 mm/s, 24 hr | μ =                | 0.03                   |
| <b>Resistance</b>              |                                                                                             |                    |                        |
| DIN 51 808                     | Oxidation resistance, pressure drop 100 hr, 99°C (210°F)                                    | bar                | 0.1                    |
| <b>Corrosion protection</b>    |                                                                                             |                    |                        |
| 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                    |

<sup>(1)</sup>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.

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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