# < DUPONT >

# MOLYKOTE<sup>®</sup> 33 Medium Extreme Low Temperature Grease

Grease for use under a wide range of temperature conditions for light-load applications where there is metal-to-metal or metal-to-plastic friction at low to high speeds

#### Features

- Superior oxidation resistance
- Wide service-temperature range (-73°C to 180°C)
- Superior low-temperature characteristics
- Compatible with most plastics
- Water-resistant

#### Composition

- Silicone oil
- Lithium soap

## Applications

Ideal for use in roller and conveyer equipment, control cables, electric motors, photographic equipment, optical equipment, measurement equipment, etc. Is also used in refrigerators or freezer equipment.

#### How to use

Clean points of application. As is usual with lubricating greases, apply or fill by means of a brush, spatula, or automatic lubrication device.

#### 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 between 0°C and 40°C in the original unopened containers, MOLYKOTE<sup>®</sup> 33 Medium Extreme Low Temperature Grease has a usable life of 60 months from the date of production.

## **Typical properties**

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

| Standard <sup>(1)</sup>         | Test   | Unit              | Result                 |
|---------------------------------|--|-------------------|------------------------|
|                                 | Color  |                   | White                  |
| Consistency, density, viscosity |  |                   |                        |
| DIN 51 562                      | Kinematic base oil<br>viscosity at 25°C                  | mm²/s             | 100                    |
| ISO 2137                        | Worked Penetration                                       | mm/10             | 260 - 300              |
|                                 | NLGI class   |                   | Appr. 2                |
| ISO 2811                        | Density at 25°C  | g/cm <sup>3</sup> | 0.98                   |
| Temperature Range               |  |                   |                        |
|                                 | Service temperature<br>range                             | °C                | -73 to 180             |
| ASTM D1478-<br>80               | Low-temperature torque test at -73°C                     |                   |                        |
|                                 | Initial breakaway<br>torque                              | Nm                | 207 x 10 <sup>-3</sup> |
|                                 | Torque after 20 min running time                         | Nm                | 32 x 10 <sup>-3</sup>  |
| Oil Separation                  |  |                   |                        |
| ASTM D 6184                     | Bleed (150°C / 24 h)                                     | %                 | ≤ 4.5                  |
| ASTM D 6184                     | Evaporation (150°C / 24 h)                               | %                 | ≤ 3.5                  |
| DIN 51817                       | Oil Separation<br>(40°C / 7 days)                        | %                 | 0.9                    |
| Oxidation resistance            |  |                   |                        |
| DIN 51808                       | Oxidation resistance,<br>(100 h, 99°C),<br>pressure loss | mbar              | 100                    |
| Load-carrying capacity          |  |                   |                        |
| DIN 51350 pt.<br>4              | Four-ball weld load<br>(1,500 rpm / 1 min)               | Ν                 | 1,400                  |
|                                 | Maximum Dn value   | mm/min            | 200,000                |
| (4) =                           |  |                   |                        |

<sup>(1)</sup> DIN: Deutsche Industrie Norm. ISO: International Standardization Organization. ASTM: American Society for Testing and Materials.

#### Packaging

This product is available in different standard container sizes. Detailed container size information should be obtained from your nearest MOLYKOTE<sup>®</sup> sales office or MOLYKOTE<sup>®</sup> distributor.

 $DuPont^{\mathsf{TM}}$ , the DuPont Oval Logo, and all trademarks and service marks denoted with  $^{\mathsf{TM}}$ ,  $^{\mathsf{SM}}$  or  $^{\otimes}$  are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted.

© 2002-2021 DuPont.

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.