

LUKOIL THERMOFLEX EP 1-460

Specialty high-temperature complex lithium grease

DESCRIPTION

LUKOIL® THERMOFLEX EP 1-460 is a specialty high-temperature grease based on complex lithium soap, highly refined high viscosity mineral oil with low evaporation and good oxidation stability. It contains additive package improving performances.

LUKOIL® THERMOFLEX EP 1-460 has superior adhesion, good water resistance, excellent tribological features and very good pumping ability. Provides excellent lubrication under exposure to shock and vibration loads. Service temperature range is from $-20\text{ }^{\circ}\text{C}$ up to $+160\text{ }^{\circ}\text{C}$.



ADVANTAGES:

- Excellent load carrying capacity within a wide temperature range
- Resistance to shock and vibrational loads
- High extreme pressure (EP) properties
- Good pumping ability
- Superior adhesion and water resistance
- Very good anti-corrosion properties

COMPOSITION:

- Highly refined high-viscosity mineral oil
- Complex lithium soap
- Additive package: anti-corrosion, anti-oxidation, anti-wear and extreme pressure (AW/EP)

APPLICATION IN UNITS:

- Centralized lubrication systems
- Rolling and sliding bearings, bushings, guideways operating for a long while under heavy loads, in wet environments, intensive vibrations, at high temperatures, and exposure to steam

APPLICATION EXAMPLES:

- Centralized lubrication systems of rolling mills, operating under shock loads and vibrations
- Centralized lubrication systems of mining and construction equipment, paper-making machines
- Bearings of grinding mills, sieving screens, clinker mills in cement industry

LUKOIL® THERMOFLEX EP 1-460. Edition 12/21 replaces edition 07/19

This product is manufactured according to STO 65561488-013-2014

LUKOIL® THERMOFLEX EP 1-460 TYPICAL PROPERTIES

| Standard | Property | Unit | Value |
|---------------|---|--------------------|-------------------|
| DIN 51502 | Marking according to DIN 51502 | | KPIP-20 |
| ISO 6743-9 | Marking according to ISO 6743-9 | | L-XBEEB 1 |
| | Color | | Blue to dark blue |
| | Service temperature range | °C | -20 to +160 |
| DIN 51818 | NLGI grade | | 1 |
| ISO 2137 | Worked penetration (60 strokes) | mm/10 | 310–340 |
| DIN 51562 | Base oil viscosity @ 40 °C | mm ² /s | 460 |
| DIN 51562 | Base oil viscosity @ 100 °C | mm ² /s | 31 |
| ISO 2176 | Dropping point | °C | >260 |
| ASTM D2596 | Four Ball Weld Load @ 25 °C | N kg | 3685 376 |
| ASTM D2266 | Four Ball Wear Scar Diameter | mm | 0.45 |
| DIN 51802 | Corrosion protection (SKF-Emcor, distilled water) | | 0-0 |
| ASTM D4048 | Copper corrosion | | 1a |
| ASTM D2509-03 | Timken OK Load | kg | 50 |
| DIN 51807 b | Water washout | % | <5 |

HOW TO USE

This grease can be applied manually with a brush or spatula, as well as through centralized lubrication system.

USABLE LIFE AND STORAGE

The guaranteed shelf life is 36 months from the date of manufacture in the manufacturer's container, subject to the conditions of transportation and storage.

HANDLING PRECAUTIONS

This product doesn't contain any toxic ingredients. During storage, transportation, and application of this product, the safety rules for handling mineral lubricating materials and the environment protection regulations must be observed.

For further information on how to use LUKOIL® products, please refer to the product MSDS.

TECHNICAL SUPPORT

For correct selection of the proper lubricating materials to meet your needs, and to get more detailed information on the products, as well as if you have any other questions, we recommend you to contact our technical support service specialists by e-mail: grease.support@lukoil.com

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Product technical properties are typical and can vary in strong limits.

Due to research and development of science and technology technical properties of product indicated in this Technical Data Sheet can be changed without notification.