

# LUKOIL THERMOFLEX EP 1-180 HD

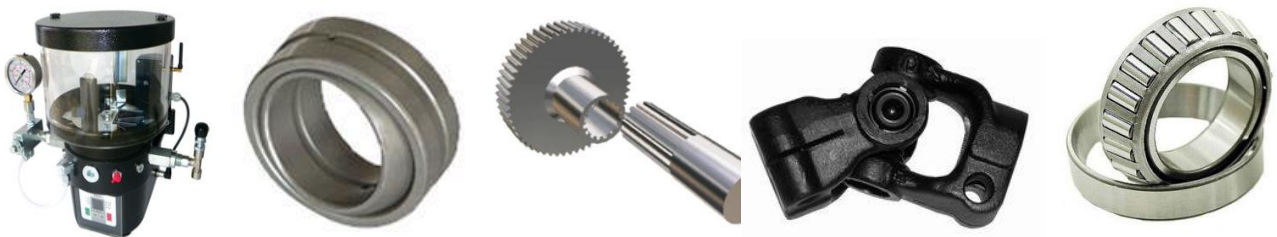
Multipurpose High-Temperature Complex Lithium Grease with Solid Lubricants

## DESCRIPTION

LUKOIL® THERMOFLEX EP 1-180 HD is a multipurpose high-temperature grease based on complex lithium soap, highly refined mineral oil blend with low evaporation and good stability to oxidation. The grease contains performance improving additive package and solid lubricants (graphite and molybdenum disulfide) for operation under boundary friction conditions.

LUKOIL® THERMOFLEX EP 1-180 HD grease has excellent tribological features and can operate under very heavy mechanical loads, including shock loads, can operate in frequent contact with water. Service temperature range is from -30 up to +160°C.

LUKOIL® THERMOFLEX EP 1-180 HD grease is black in color and has soft consistency.



### ADVANTAGES:

- Resistance to shock and vibrational loads
- Excellent high-temperature properties
- Excellent load carrying capacity at low temperatures
- Excellent pumping ability
- High water resistance
- Excellent adhesion
- Very good anti-corrosion properties

### COMPOSITION:

- Highly refined mineral oil
- Complex lithium soap
- anti-corrosion, anti-oxidation, anti-wear (AW) / extreme pressure (EP) additives
- Solid lubricants (graphite and molybdenum disulfide)

### APPLICATION IN UNITS:

- Centralized lubrication systems
- Heavy-loaded rolling bearings
- Sliding bearings

### APPLICATION EXAMPLES:

- Centralized lubrication systems in construction, lumbering, mining and agricultural machinery where use of NLGI 1 class greases with solid lubricants is recommended
- Used in heavily loaded bearings of industrial equipment operating under high humidity conditions, under extreme and shock loads

LUKOIL THERMOFLEX EP 1-180 HD. Edition 07/19 replaces edition 04/18

This product is manufactured according to STO 65561488-015-2014

## LUKOIL® THERMOFLEX EP 1-180 HD

### TYPICAL PROPERTIES

| Standard*  | Property   | Unit               | Value       |
|------------|--|--------------------|-------------|
| DIN 51502  | Marking according to DIN 51502                       |                    | KPF1P-30    |
| ISO 6743-9 | Marking according to ISO 6743-9                      |                    | L-XCEFB 1   |
|            | Color  |                    | Black       |
|            | Service temperature range                            | °C                 | -30 to +160 |
| DIN 51818  | NLGI consistency class                               |                    | 1           |
| ISO 2137   | Worked penetration (mixed, 60 double strokes)        | mm/10              | 310-340     |
| DIN 51562  | Base oil viscosity at 40°C                           | mm <sup>2</sup> /s | 180         |
| DIN 51562  | Base oil viscosity at 100 °C                         | mm <sup>2</sup> /s | 16          |
| ISO 2176   | Drop point   | °C                 | 260         |
| ASTM D2596 | Weld load (4-ball machine test) at 25°C              | N                  | 4635        |
| ASTM D2266 | Wear scar (4-ball machine test)                      | mm                 | 0.5         |
| DIN 51802  | Corrosion degree (rolling bearings, distilled water) |                    | 0-0         |
| ASTM D4048 | Corrosion degree (copper stripe)                     |                    | 1a          |

\*DIN: Deutsche Industrie Norm.

ISO: International Standardization Organization.

ASTM: American Society for Testing and Materials.

### HOW TO USE

This grease can be applied manually with brush or spatula, as well as through individual lubrication systems.

### USABLE LIFE AND STORAGE

When stored in the original unopened containers in a dry place, this product has a shelf life of at least 36 months from the date of production.

### 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 lubricating materials to meet your needs, for 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](mailto: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.