

# LUKOIL THERMOFLEX EP 1-180

Multipurpose high-temperature complex lithium grease

## DESCRIPTION

LUKOIL® THERMOFLEX EP 1-180 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 high performance additive package.

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



### ADVANTAGES:

- High extreme pressure (EP) properties
- Excellent load carrying capacity at low temperatures
- Good pumping ability
- High water resistance
- Excellent adhesion
- Very good anti-corrosion properties
- Resistance to shock and vibrational loads

### COMPOSITION:

- Highly refined mineral oils
- Complex lithium soap
- Anti-wear (AW) / extreme pressure (EP), anti-corrosion, anti-oxidation additives

### APPLICATION IN UNITS:

- Centralized lubrication systems
- Bearings, bushings, swivels, guideways operating for a long while under heavy loads, in wet environments, exposed to intensive vibrations, high temperatures and steam

### APPLICATION EXAMPLES:

- Centralized lubrication systems in construction, mining, lumbering and agricultural machinery where use of NLGI grade 1 greases is recommended
- High-speed bearings of vehicles and various industrial equipment in winter conditions

LUKOIL® THERMOFLEX EP 1-180. Edition 12/21 replaces edition 07/19

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

**LUKOIL® THERMOFLEX EP 1-180 TYPICAL PROPERTIES**

Standard	Property	Unit	Value
DIN 51502	Marking according to DIN 51502		KPIP-30
ISO 6743-9	Marking according to ISO 6743-9		L-XCEHB 1
	Color		Blue to dark blue
	Service temperature range	°C	-30 to +160
DIN 51818	NLGI grade		1
ISO 2137	Worked penetration (60 strokes)	mm/10	310-340
ISO 2137	Penetration change @ 25 °C after 10000 cycles	mm/10	±10
DIN 51562	Base oil viscosity @ 40 °C	mm <sup>2</sup> /s	180
DIN 51562	Base oil viscosity @ 100 °C	mm <sup>2</sup> /s	16
ISO 2176	Dropping point	°C	>220
ASTM D2596	Four Ball Weld Load @ 25 °C	N kg	3283 335
ASTM D2266	Four Ball Wear Scar Diameter	mm	0.5
DIN 51802	Corrosion protection (SKF-Emcor, distilled water)		0-0
ASTM D4048	Copper corrosion		1a

**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](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.