

# 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, good stability to oxidation, and package of the high-performance additives improving performances.

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

LUKOIL® THERMOFLEX EP 1-460 Grease is blue in color and has soft consistency and homogeneous structure.



### **ADVANTAGES:**

- Excellent load carrying capacity within a wide temperature range
- Excellent resistance to shock and vibration loads
- High extreme pressure (EP) properties
- Excellent pumping ability
- Excellent adhesion
- High 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 (AW) / extreme pressure (EP) additives

### **APPLICABLE 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

### **APPLICATIONS:**

- Centralized lubrication systems of rolling mills in metallurgy, 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 04/18 replaces edition 10/16

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		KP1P-20
ISO 6743-9	Marking according to ISO 6743-9		L-XBEEB 1
	Color	Blue to navy-blue	
	Service temperature range	°C	-20 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	460
DIN 51562	Base oil viscosity at 100°C	mm <sup>2</sup> /s	31
ISO 2176	Drop point	°C	>260
ASTM D2596	Weld load (4-ball machine test) at 25°C	N	3685
ASTM D2266	Wear scar (4-ball machine test)	mm	0.45
DIN 51802	Corrosion degree (rolling bearings, distilled water)		0-0
ASTM D 4048	Corrosion degree (copper strip)		1a
ASTM D2509-03	Timken OK load	kg	50
DIN 51807 b	Water washout of the bearing, not more	%	5

\*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 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.