

# LUKOIL POLYFLEX OPTIMUM

## 1-100; 2-100; 3-100

Multipurpose lithium greases

### **DESCRIPTION**

LUKOIL® POLYFLEX OPTIMUM 100 series are multipurpose antifriction greases based on high-quality mineral base oil blend thickened with lithium soap fortified with high-performance additive package improving anti-wear, adhesive, and anti-corrosion properties.

LUKOIL® POLYFLEX OPTIMUM 100 greases have good tribological features and can operate within a wide temperature range from –40 °C up to +120 °C.

LUKOIL® POLYFLEX OPTIMUM 100 greases are formulated to provide effective lubrication, good thermal stability, and good structure stability during storage and use. NLGI 1, 2, 3 grades are available.



### **ADVANTAGES:**

- Very good low-temperature properties
- Excellent mechanical and colloidal stability
- Low coefficient of friction
- Very good anti-wear properties
- Good water resistance
- High level of anti-corrosion properties
- Good pumping ability (NLGI 1, 2 grades)

### **COMPOSITION:**

- Highly purified mineral oil blend
- Specialty lithium soap
- Additive package: anti-oxidation, anti-corrosion, AW, and adhesive additives

### **APPLICATION IN UNITS:**

- Rolling and sliding bearings
- Splined joints, studs, pivots, pins, axes
- Centralized lubrication systems (NLGI 1, 2 grades)

### **APPLICATION EXAMPLES:**

- Widely used on bearings of the industrial equipment, passenger cars, agricultural machinery
- Centralized lubrication systems in trucks, agricultural machinery, off-road vehicles, lumbering and construction machinery
- Replace LITOL-24, FIOL-1, FIOL-2 greases

LUKOIL® POLYFLEX OPTIMUM 1-100; 2-100; 3-100. Edition 12/21 replaces edition 07/19

These products are manufactured according to STO 65561488-054-2015

### **LUKOIL® POLYFLEX OPTIMUM 100 TYPICAL PROPERTIES**

Standard	Property	Unit	OPTIMUM 1-100	OPTIMUM 2-100	OPTIMUM 3-100
DIN 51502	Marking according to DIN 51502		K1K-40	K2K-40	K3K-40
ISO 6743-9	Marking according to ISO 6743-9		L-XDCEA 1	L-XDCEA 2	L-XDCEA 3
	Color, appearance		From light yellow to brown, homogeneous		
	Service temperature range	°C	-40 to +120	-40 to +120	-40 to +120
DIN 51818	NLGI grade		1	2	3
ISO 2137	Worked penetration (60 strokes)	mm/10	310–340	265–295	220–250
DIN 51562	Base oil viscosity @ 40 °C	mm <sup>2</sup> /s	90–110	90–110	90–110
ISO 2176	Dropping point	°C	>200	>200	>200
ASTM D2596	Four Ball Weld Load @ 25 °C	N	2067	2067	2067
		kg	211	211	211
ASTM D2596	Four Ball Non-Seizure Load	N	696	696	696
		kg	71	71	71
ASTM D2266	Four Ball Wear Scar diameter	mm	0.55	0.55	0.55
DIN 51802	Corrosion protection (SKF-Empcor, distilled water)		0-0	0-0	0-0
ASTM D4048	Copper corrosion		1a	1a	1a

### **HOW TO USE**

These greases can be applied manually with brush or spatula, as well as through individual 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**

These products don't contain any toxic ingredients. During storage, transportation, and application of these products, 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.