

# OILS FOR AXLE JOURNALS OF L, Z AND S TYPES, OIL FOR AXLE JOURNALS LUKOIL TYPE V

## Oils for axle journals

IN COMPLIANCE WITH THE REQUIREMENTS OF Russian Railways, OJSC, in respect of lubricants for traction motor support bearings of locomotive electrical engines.

### PRODUCT DESCRIPTION

The oils for axle journals of types Z, L, and S, and the type V LUKOIL axial oil are based on a mixture of petroleum extracts and selective solvent-refined oil components (type L) involving components subjected to hydrodewaxing (types V, Z, and S); inclusion of depressant additives is acceptable.

The different types of the oils for axle journals of varying viscosity and temperature characteristics are used depending on the application conditions: type L is used in summer; type Z is for winter use; type S – for winter use in very cold areas; type V (all-season) is intended for year-round use.

### APPLICATION

The types Z, L, S oils for axle journals and type V LUKOIL oil for axle journals are intended for use in traction motor support bearings of locomotive electrical engines, as well as for lubricating axial set necks and other sliding friction units of the rolling stock. It is sometimes used for greasing friction units and certain low-loaded reduction gear units of industrial equipment.

The type Z, L, S oils for axle journals and type V LUKOIL oil for axle journals are accepted for use in 2012–2013 for managed maintenance in traction motor support bearings of locomotives.

The type V oil for axle journals is accepted for 2012–2013 in-service trials in traction motor support bearings of locomotives.

### BENEFITS

- The type V LUKOIL oil for axle journals and type Z, L and S oils for axle journals provide reliable protection of friction units from early wear;
- They have good protective and anticorrosive properties;
- They have high demulsibility;
- Due to wide interval of effective temperatures, type V LUKOIL oil for axle journals can be used all year round;
- Due to high quality depressor additives the type S axial oil can operate effectively at temperatures down to  $-55^{\circ}\text{C}$ .

The product is manufactured as per GOST 610-72, type V – as per STO 655611488-006-2011

### STANDARD CHARACTERISTICS

PROPERTY	TYPE L	TYPE Z	TYPE S	LUKOIL TYPE V
Kinematic viscosity at $50^{\circ}\text{C}$ , $\text{mm}^2/\text{s}$ , within	42.00–60.00	Min. 22.00	12.00–14.00	Min. 28.00
Dynamic viscosity, Pa·s, or less				
• At $0^{\circ}\text{C}$	10.00	–	0.20	–
• At minus $10^{\circ}\text{C}$	15.00	–	–	–
• At minus $30^{\circ}\text{C}$	–	60.00	–	80.00
• At minus $50^{\circ}\text{C}$	–	–	250.00	–
Open cup flash point, $^{\circ}\text{C}$ , or more	135	125	125	125
Pour point, $^{\circ}\text{C}$ , or less	–5	–40	–55	–35

Corrosive effect on metals

- Steel 40, 45 as per GOST 1050
- Copper M2 as per GOST 859

Resistant

Resistant

Water soluble acid and alkali  
content, %, or less

0.07

0.05

0.04

0.05

The standard product characteristics are average values and do not constitute the manufacturer's specification. They can be subject to change in accordance with the requirements of INTESMO, LLC. Please contact the technical support team for any question related to the application and replacement of grease products manufactured by INTESMO, LLC.