

LZ-TsNII(U)

Railway grease

DESCRIPTION

Railway grease LZ-TsNII(U) is produced on the basis of a mixture of mineral oils thickened with sodium-calcium soap of castor oil acids with the addition of components to ensure good antiwear characteristics. It is produced at one of the most modern industrial facilities in Russia, using high-quality raw materials.

The LZ-TsNII(U) is intended for use in rolling bearings of railway cars, as well as in bearings of electric machines at temperatures from $-60\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$. Due to its high performance characteristics, the railway grease LZ-TsNII(U) is a reliable choice for universal use in all climatic zones of Russia.

The service life of the grease in time is up to 5 years, in terms of mileage – at least 450 000 km.



<p><u>ADVANTAGES:</u></p> <ul style="list-style-type: none"> • Excellent low-temperature properties • Good anti-wear and extreme-pressure characteristics • Reliable bearing protection even at high speeds and shock loads 	<p><u>COMPOSITION:</u></p> <ul style="list-style-type: none"> • A mixture of highly refined mineral oils • Sodium-calcium soap • Special package of highly effective additives
<p><u>APPLICATION IN UNITS:</u></p> <ul style="list-style-type: none"> • Rolling bearings 	<p><u>APPLICATION EXAMPLES:</u></p> <ul style="list-style-type: none"> • Rolling bearings of railway cars • Bearings of electrical machines

LZ-TsNII(U). Edition 12/21, replaces all previously published edition

This product is manufactured according to TU 0254-013-00148820

LZ-TsNII(U) TYPICAL PROPERTIES

Standard	Property	Unit	Value
	NLGI grade		3
	Appearance		Homogeneous yellow or light brown ointment
GOST 5346	Worked penetration @ 25 °C (60 strokes)	mm/10	200–260
GOST 7163	Viscosity @ 0 °C and an average gradient of deformation rate of 10 s ⁻¹ , max.	Pa·s	600
GOST 7143	Ultimate strength @ 50 °C	Pa	200–600
GOST 6793	Dropping point, min	°C	130
GOST 2477	Water content, max	%	0.4
GOST 6707	Mass fraction of free alkali in terms of NaOH	%	0.02–0.2
GOST 7142 A	Oil separation, max	%	10–24
GOST 9566	Vaporability @ 100 °C for 1 h, max	%	9
GOST 9.080	Corrosion effect on metals: brass LC40S; steel 40, 50		Pass
GOST 6479	Mechanical impurities content, max	%	Absence
GOST 9490	Four Ball Non-Seizure Load (P _k), min	N	921
	Four Ball Scar Diameter (D _i) at a load of 196 N for 1 h, max	kg	94
		mm	0.55

HOW TO USE

This grease can be applied manually with a brush or spatula.

USABLE LIFE AND STORAGE

The guaranteed shelf life is 60 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

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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.