



PRODUCT CATALOGUE

Lubricants for mining industry

WE CREATE CONDITIONS FOR GROWTH



Group of Companies "Titan"

It is the largest company in Siberia, one of the key investors of Omsk region. It was founded in 1989 by Mikhail Sutyaginsky.

It includes about 20 enterprises of the petrochemical and agro-industrial complex, as well as infrastructure enterprises.

The main production site of the company is located on the territory of Omsk region; subsidiaries and affiliates are represented in the regions of Russia (Moscow, St. Petersburg, Novocherkassk, Pskov, Ufa etc) and the CIS countries. The number of employees of the Group's enterprises is about 4000 people.

Novocherkassk Lubricant Production Plant

The production facilities of Novocherkassk Lubricant Production Plant (NZSM LLC) are based on process units producing lubricants, oils and process fluids for different industries: oil and gas, mechanical engineering, metallurgy and metalworking, instrument making, automotive and railway transport industries, as well as for the defense complex. The enterprise facilities allow to produce more than 12 000 tons of lubricants and over 23 000 tons of process fluids per year.

The plant operates using **a unique technology** based on dry boiling-off due to which energy costs are significantly reduced and end product quality is maintained. The production process is practically waste-free due to the closed processing cycle.

The product quality is a determinant factor of the activity of NZSM LLC. The quality control of each production stage is conducted by the Quality Control Division of the production testing laboratory possessing all the necessary modern equipment.

The center of research works is represented by **an experimental industrial laboratory** which activity is aimed at creating new products and effective production technologies.

The range of products includes products based on petroleum and synthetic oils – engine, transmission, hydraulic oils; greases; lubricants; metalworking fluids; release fluids; friction modifiers and drilling fluid components. The products of NZSM LLC are certified and approved by VNIIZhT JSC (All-Russian Railway Research Institute), VNIINP JSC (All-Russian Research Institute of Oil Refining), RosNITI (Russian Research Institute of Pipe Industry) and Gazprom VNIIGAZ LLC (All-Russian Scientific Research Institute of Natural Gases and Gas Technologies).

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PRODUCTS OF NZSM LLC

UNIVERSAL GREASES

Product name	NOVA 150220 EP	NOVA 100 Li-Ca	LITHOL-24	
Thickener	Lithium soap	Lithium-calcium soap	Lithium soap	
NLGI	1; 2; 3	1; 2; 3	3	
Welding load, N	2800	1950	1410	
Base oil viscosity at 40 °C, 150–220 mm²/s		110	110	
Operating temperature range, °C	-30+120	-40+120	-30+120	
Basic characteristics	Universal grease for roller and slide bearings with EP additives, for construction and road construction machinery and industrial equipment. Reduces friction and wear especially in friction couples subject to medium and high loads.	Universal grease for roller and slide bearings of vehicles and industrial equipment. Due to the lithium- calcium thickener the grease possesses good pumpability, high adhesion and water resistance.	Anti-friction multipurpose water resistant grease. Possesses many advantages of lithium greases, demonstrates exceptional shear stability, excellent sealing properties, resistant to moisture.	
Conformity to the performance property category	DIN 51502 KP(NLGI)K-30 ISO 6743 L-XCCEB (NLGI)	DIN 51502 K(NLGI)K-40 ISO 6743 L-XDCEA(NLGI)	DIN 51502 K(NLGI)K-30 ISO 6743 ISO-L-XCCEA (NLGI)	

Package

Drum 180 kg, bucket 18 kg

LUBRICANTS FOR JOINTS

Product name	NOVA ULTRA 150220 EP	ShRUS-4
Thickener	Lithium soap	Lithium-calcium soap
NLGI	1; 2; 3	1; 2; 3
Welding load, N	2800	1950
Base oil viscosity at 40 °C, mm²/s	150–220	110
Operating temperature range, °C	-30+120	-40+120
Basic characteristics	Anti-friction grease, based on the mixture of high quality mineral oils, thickened with special lithium soap. The grease is enhanced with high –efficiency additive package, improving performance properties, it also contains solid lubricants for operation in boundary friction conditions.	Anti-friction multipurpose automotive grease with multifunctional additive package and molybdenum disulfide/ Recommended for lubricating constant velocity joints.
Conformity to the performance property category	DIN 51502 KPF(NLGI)K-30 ISO 6743 ISO-L-XCCEA2 (NLGI)	DIN 51502 KPF2K-40









PRODUCTS OF NZSM LLC

SPECIAL GREASE FOR HEAVILY LOADED UNITS

Product name	NOVA SUPER 220 EP	NOVA SUPER 3M	TITAN CSC 220460		
Thickener	Lithium complex soap	Lithium complex soap	Calcium sulfonate complex soap		
NLGI	1; 2; 3	1; 2; 3	1; 2; 3		
Welding load, N	2900	3150	4900		
Base oil viscosity at 40 °C, mm²/s			220460		
Operating temperature range, °C	-30+160	-30+160	-20+180		
Basic characteristics	Special grease for roller and slide bearings of vehicles and industrial equipment, capable to operate under high mechanical loads and high temperature. Possesses long service life compared to simple lithium greases.	Special grease for roller and slide bearings of vehicles and industrial units, contains solid lubricants. Capable to operate under extremely high mechanical loads and high temperature.	Special water resistant and heat resistant grease, thickened with calcium sulfonate complex grease and mixture of mineral oils. Capable to operate under high mechanical loads and contact with water, including seawater.		
Conformity to the performance property category ISO 6743 L-XCEHB (NLGI)		DIN 51502 KPF(NLGI)P-30 ISO 6743 L-XCEFB (NLGI)	DIN 51502 KP(NLGI)R-20 ISO 6743 L-XBEIB (NLGI)		

Package

Drum 180 kg, bucket 18 kg

SPECIAL GREASES FOR DELIVERY THROUGH CENTRALIZED SYSTEMS

Product name	NOVA ARCTIC 35	NOVA ARCTIC 100
Thickener	Lithium soap	Lithium soap
NLGI	0; 1; 2	1; 2
Welding load, N	3150	3150
Base oil viscosity at 40 °C, mm²/s	3540	110
Operating temperature range, °C	-50+100	-50+120
Basic characteristics	Series of specially designed greases for operation in centralized systems at extremely low temperatures. It is produced based on the mixture of high-quality low-viscosity oils, thickened with lithium soap, contains high-performance additives and solid lubricants.	Specially designed grease for the operation in centralized systems as an all-season grease. It is produced based on synthetic oils, thickened with lithium soap, contains additives and solid lubricants.
Conformity to the performance property category	DIN 51502 KPF(NLGI)E-50 ISO 6743 L-XEBEA (NLGI)	DIN 51502 KPFHC(NLGI)K-50
Package		







PRODUCTS OF NZSM LLC

SPECIAL GREASES FOR HIGH-SPEED BEARINGS

Product name	NOVA SUPER SHC 100	CIATIM-201	CIATIM-221	
Thickener	Lithium complex soap	Lithium soap	Calcium complex soap	
NLGI	2	3	2	
Welding load, N 3000		2000	2000	
Base oil viscosity at 40 °C, 100 mm²/s		32	32	
Operating temperature range, °C	-50+180	-60+100	-60+150	
Basic characteristics	Plastic grease, used in high-speed friction units, e.g. in bearings of electric motors, generators, where low friction coefficient and long-term operation are required. Based on synthetic oils, thickened with special lithium soap.	Cold-resistant, water- resistant instrument grease for the lubrication of low-loaded rolling and sliding friction units. Operating temperature range is from -60 to +90 °C.	Grease with a low apparent viscosity at the level of $800 \text{ Pa} \cdot \text{s}$ max at +50 °C for application in high-speed units. Lack of chemical activity of the grease towards hydrocarbon polymers and elastomers allows to apply the grease in metal-rubber, metal- plastic and plastic-plastic friction couples.	
Conformity to the performance property category	DIN 51502 K2K-30 ISO 6743 ISO-L-XCCEA2	GOST 6267-74	GOST 9433-80	

Package

Drum 180 kg, bucket 18 kg

SPECIAL LUBRICANTS FOR OPEN GEARS

Product name	POLAR 700 OG	POLAR 1500 OG	POLAR 3500 OG 0	POLAR	ULTRA	5M
Thickener	Special lithium soap	Special lithium soap	Aluminium complex soap	Calcium sulfonate complex soap		ate
NLGI	1	1	0	0	1	2
Welding load, N	6800	6800	6800	6200	6200	6200
Base oil viscosity at 40 °C, mm²/s	700	1500	3500	150	150	150
Operating temperature range, °C	-50+120	-30+140	-30+120	-45 +140	-35 +140	-30 +140
Basic characteristics	Special liquid lubricant for swing bearings of excavators based on special high- viscosity adhesive oil and solid lubricants, meets the requirements of OEM – P&H 520. Recommended for operating temperature range from –55 to +10 °C.	Special lubricant for open gears. Capable for pumping via centralized lubrication systems and for operation within a wide temperature range from -35 °C to +140 °C.	Special lubricant for dragline excavators and shovels, based on a special high- viscosity mineral oil and aluminum complex soap with solid lubricant content.	Special grease based on calcium sulfonate complex soap and naphthenic oils for roller and slide bearings of vehicles and industrial units. Recommended for th lubrication of units, working under high loads and relative speeds.		onate and ide icles nits. I for the nits, nigh
Conformity to the performance property category	DIN 51502 OGX1K-50	DIN 51502 OGF1K-35	DIN 51502 OGF0N-10	ISO 67	_GI)P-45	

Package









ENGINE OILS

Product name	Conformity to standards	Density, g/ml	Viscosity, cSt at 40 °C	Flash point, ℃	Pour point, °C
NORDSTAR ARCTIC 0W-40	Cat ECF-3 API CJ-4/CI-4 PLUS/CI-4/CH-4/SM	0.85	89	260	-40
NORDSTAR DEO 10W-30	Cat ECF-2 API CI-4/CH-4/SL	0.87	76	222	-36
NORDSTAR DEO 15W-40	Cat ECF-2 API CI-4/CH-4/SL ACEA E5/B3/A2	0.88	103	230	-30

TRANSMISSION OILS

Product name	Conformity to standards	Density, g/ml	Viscosity, cSt at 40 °C	Flash point, °C	Pour point, °C
TRIBOSTAR TM-4	API GL-4 SAE 75W-80 75W-85 75W-90 80W	0.88	32–68	245	-30
TRIBOSTAR TM-5	API GL-5 SAE 75W-90 80W-90 80W-140 85W-140	0.88	32–68	245	-30

HYDRAULIC OILS

Product name	Туре	Density, g/ml	Viscosity, cSt at 40 °C	Flash point, °C	Pour point, °C
TITAN HFDU	Fire resistant hydraulic fluid	0.92	32–68	310	-30
TITAN HFC	Fire resistant hydraulic fluid	1.072	32–68	_	-50
TITAN HM TITAN HLP TITAN HZF TITAN HLPD	Hydraulic oil	0.88	32–68	245	-30

Package





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Novocherkassk Lubricant Production Plant

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