



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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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, mm²/s	150–220	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

4 NZSM®

Drum 180 kg, bucket 18 kg





THREAD GREASES

TITILAD GREAGES		
Product name	ORION 111	ORION 112
Thickener	Lithium soap (PI, Zn, Cu)	Lithium soap (PI, Zn, Cu)
NLGI	0; 1; 2	1; 2
Friction coefficient	1.2	1.3
Brushing at -40 °C	Applicable by brush	Applicable by brush
Operating temperature range, °C	-45+180	-40+150
Basic charateristics	It is designed for sealing and pressurizing rounded and buttress threads of conductor and tubing pipe connections of any diameter during operation under a high pressure. It is suitable for normal and cold-resistant pipes, as well as for H ₂ S and CO ₂ corrosion-resistant pipes. The grease can be applied manually by a brush or spatula as well as via an individual lubrication system.	It is designed for sealing and pressurizing rounded and buttress threads of conductor and tubing pipe connections of any diameter during operation under a high pressure. It is suitable for normal and cold-resistant pipes, as well as for H ₂ S and CO ₂ corrosion-resistant pipes. The grease can be applied manually by a brush or spatula as well as via an individual lubrication system.
Conformity to the performance property category	ISO 13678/API 5A3 TP TC 030/2012	ISO 13678/API 5A3 TP TC 030/2012

Package

Drum 180 kg, bucket 20 kg







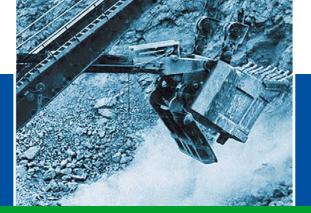




Product name	ORION 131 (ECO)	ORION 114 ZN 50	ORION 116		
Thickener	Lithium soap	Lithium soap (Zn, Cu)	Lithium soap (Cu – 21%)		
NLGI	0; 1; 2	0; 1; 2	1; 2		
Friction coefficient	1.7	1.1	1.1		
Brushing at -40 °C	Applicable by brush	Applicable by brush	Applicable by brush		
Operating temperature range, °C	-50+200	-50+180	-50+200		
Basic characteristics	The grease is produced without metal particles and used during the assembly of oil-well tubing (normal, cold-resistant and stainless steel). It is produced in three versions including those with improved protection properties.	It is designed for sealing and pressurizing rounded and buttress threads of conductor and tubing pipe connections of any diameter during operation under a high pressure. It possesses improved protection properties, excellent anti-wear and high extreme pressure properties ensuring reliable pipe pressurization.	It is designed for sealing and pressurizing rounded and buttress threads of conductor and tubing pipe connections of any diameter during operation under a high pressure, including during the thread connection assembly with coatings for gas-tight and very leak-tight thread connections with metal-to-metal sealing.		
Conformity to the performance property category	ISO13678/API 5A3 TP TC 030/2012	ISO13678/API 5A3 TP TC 030/2012	ISO13678/API 5A3 TP TC 030/2012		

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. t 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		

Drum 180 kg, bucket 18 kg











PROCESS FLUIDS FOR OIL-BASED DRILLING MUDS

Process fluid TITAN

The complex multicomponent dispersion system of fluids is designed for maximum retention of reservoir properties within the process of well drilling and servicing operations.

Product name	TITAN 2VV	TITAN 2VV(2)	TITAN 4VI
Kinematic viscosity at 40 °C, mm²/s	3.8	2.7	6.7
Density at 20 °C, kg/m³	828	820.4	836
Open cup flash point, °C, min	90	90	130
pH index	6.2	6	7
Operating temperature range, °C	-50+180	-60+100	-60+150
Aniline point, °C, min	80	80	80
Aromatic hydrocarbon content, % max	3	3	3

The process fluid of TITAN series can be produced according to the customer's Terms of Reference observing required parameters.

Package

Drum 180 kg, container 830 kg

Lubricating additive TITAN-ECO

This is an oily mineral oil based brownish liquid, consisting of surfactants and additives improving anti-wear and anticorrosion properties.

Application: It is designed for conditioning fresh drilling and salt drilling muds during drilling of vertical and directed well pads of oil and gas wells.

The lubricating additive effectively reduces friction coefficient, considerably reduces the risk of differential sticking, eases the drilling tool motion, extends the drilling bit operating life. The lubricating additive prevents foam formation and beside the friction coefficient reduction it improves parameters of the basic processing properties of drilling

It's recommended for water based drilling mud in the form of 0.3-3% additive. It's added directly to a drilling mud.

Drum 180 kg, container 830 kg



Product name	POLAR 700 OG	POLAR 1500 OG	POLAR 3500 OG 0	POLAF	ULTRA	5M
Thickener	Special lithium soap	Special lithium soap	Aluminium complex soap		n sulfon ex 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 rang, °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.	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 base on calcium sulfonate complex soap and naphthenic oils for roller and slide bearings of vehicles and industrial units. Recommended for the lubrication of units, working under high loads and relative speeds.		onate c oils ide nicles inits. I on g
Conformity to the performance property category	DIN 51502 OGX1K-50	DIN 51502 OGF1K-35	DIN 51502 OGF0N-10	ISO 67	LGI)P-45	

Package

Drum180 kg, bucket18 kg







PRODUCTS OF NZSM LLC





ENGINE OILS

Product name	Conformity to standards	Density, g/ml	Viscosity, cSt at 40 °C	Flash point, °C	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

Drum 180 kg, bucket 18 kg









Novocherkassk Lubricant Production Plant

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