



PRODUCT GUIDE

Oryx Energies range of lubricants

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Part of AOG

SERVE NEEDS

Oryx Energies offers a comprehensive range of lubricants and greases that address domestic and industrial requirements

We have been manufacturing and selling a complete range of high quality automotive, marine and industrial lubricants, since 1999, to meet the diverse needs of customers across Africa.

The range of lubricants and greases that we sell are specially developed at our global headquarters in Geneva, Switzerland, and rigorously tested under the most severe conditions, so that we, and our customers, can be assured of their quality.

Our research has led to the development of proprietary formulations with unique performance characteristics and we can offer this expertise to create customised products to meet specific customer requirements. The lubricants are manufactured close to our markets, through our wholly-owned lubricant blending plants in Dar es Salaam, Tanzania, and Lomé, Togo. The two facilities have a combined capacity of 100,000 tonnes per year and can offer a high level of flexibility in producing and packaging both mineral and synthetic products, from half-litre cans to bulk volumes.

Our plant in Dar Es Salaam was opened in 1999 and serves most of East Africa with Oryx Energies branded lubricants. It also blends for international third parties under toll manufacturing agreements. Our state-of-the-art blending facility in Lomé was opened in 2011. It is fitted with the latest blending and control systems and serves mainly West Africa. These two modern, local plants reflect Oryx Energies' commitment to developing a downstream platform that is close to its customers.

As part of Oryx Energies' integrated oil and gas supply, storage and distribution model, our lubricants benefit from easy access to international markets through our trading and shipping arms and from our unique network of affiliates and infrastructure across sub-Saharan Africa. This enables us to manage the entire supply chain, from the source right into the remotest areas, in response to customer needs.

We are proud of our reputation for innovative and premium quality lubricants, approved by manufacturers and certified by international technical committees. We also provide our customers with technical and logistical expertise and a wide range of services. These include expert tribology services for fuels and lubricants, basic and advanced training, waste management, maintenance optimisation through customised products, vendor managed solutions (ensuring onsite installation and management of fit-for purpose depots, tailored to needs), Oil & Equipment condition monitoring, on-site surveys, etc.

The quality of our products is matched by the attention we pay to the health and safety of our employees, and to the environment in which we operate. These form an integral part of our license to operate. We also work closely with our customers' safety departments to ensure we meet their site standards, and run prevention and protection drills.

Our lubricants are also available to domestic consumers in a number of African countries through Oryx Energies' own service stations and a network of selected distributors and resellers.



Product Guide

This catalogue aims to present the main range of Oryx Energies lubricants for Industry, Transport, Public Works, Agriculture, Automotive and Mining. Each product is briefly described with its main applications and technical characteristics.

This guide provides a good description of our range. It summarises its main fields of application and gives you an initial recommendation.

For a more precise recommendation or for a specific application, please refer to our product data sheets or contact one of our sales managers or resellers.

Beyond our commitment to providing premium quality lubricants, approved by manufacturers and certified by international technical committees, we offer our customers a large technical and logistical expertise together with a wide range of services.

All our lubricants are manufactured in our 100% owned plants in Tanzania and Togo. They all come with a safety data sheet, which should always be consulted before handling the product, to minimise any possible risk to the health of users and more generally in relation to the HSE policy (Health Safety & Environment) in force.

This catalogue is a reflection of our core range, but does not constitute an exhaustive list of our products.



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Oryx Engine Oils range

ENDURO product range

ENDURO is the Oryx Energies heavy-duty diesel engine oils range. ENDURO oils have been developed to provide the right engine lubrication solutions and match the most demanding requirements of your equipment, allowing you to focus on your business.

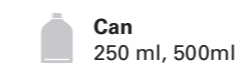
AXCELLA product range

AXCELLA is the Oryx Energies passenger car petrol and diesel engine oils range. AXCELLA oils are formulated to make engines work better and last longer, giving you the maximum performance out of your vehicle.

MULTI Greases

MULTI is the Oryx Energies greases range. The greases are meticulously produced to offer the utmost field performance and help you benefit from longer-lasting machinery life.

Packaging



Can
250 ml, 500ml



Drum
200 L, 205 L, 208 L



Cartridge (grease)
400 g



Drum (grease)
180 kg



Can
1 L, 4 L, 5 L



IBC
1000 L



Box (grease)
500 g, 1kg



Jerrycan
20 L, 25 L



Bulk
> à 1000 L






Pail (grease)
18,5 kg

Disclaimer



The information contained in this document is of a general nature and is not intended to provide comprehensive advice nor specific advice on product applications in individual circumstances. To the extent permitted by law, Oryx Energies S.A and any of its subsidiaries exclude all liability for any loss or damage which arises (whether on the basis of negligence or otherwise) as a result of reliance on the contents of this guide.

For more information, please refer to the Technical and Safety Data Sheets. The information is current as at the time of printing. However, this guide may reflect upcoming changes to our product range and associated pack changes. Accordingly, the products listed may not yet be available or they may not be available in the listed size or volume.

Synthetic Oils

Products	Grade	Specifications	Description	Packaging
AXCELLA 700 SX	5W-30	API SN ACEA C2-10 ACEA A5/B5-10 PSA B71 2290 Renault RN 700	AXCELLA 700 SX SAE 5W-30 is a full synthetic lubricant for ultimate engine protection and performance. It has been designed for modern and sports cars with engines that run faster and hotter in order to achieve maximum power, fuel economy and reduced emissions.	
AXCELLA 700 SXF	5W-30	API SL ACEA A5/B5 Ford WSS-M2C-913C & Ford WSS-M2C-913D Renault RN 700	AXCELLA 700 SXF SAE 5W-30 is a full synthetic lubricant for ultimate engine protection and performance. It has been designed for modern and sports cars with engines that run faster and hotter in order to achieve maximum power, fuel economy and reduced emissions. It is suitable for the latest Ford engines requiring a WSS -M2C-913C or D lubricant.	
AXCELLA 600 SX	5W-40	API SM/CF ACEA A3/B3, A3/B4 MB 229.3 VW 502 00/505 00 Porsche A40 Renault RN 0710/0700	AXCELLA 600 SX is a fully synthetic lubricant for ultimate engine protection and performance. Ideal for modern and sports cars with engines that run faster and hotter in order to achieve maximum power, fuel economy and reduced emissions. Also suitable for all turbocharged engines that run on diesel and gasoline fuels. TBN : 8.9	
AXCELLA 500 SX	10W-40	API SL/CF ACEA A3/B4 MB 229.1 VW 501 01/505 00	AXCELLA 500 SX is a high performance semi-synthetic blend engine oil that exceeds the latest industry performance standards required in today's gasoline and diesel automobile engines. Actively maintains overall engine cleanliness preventing the build up of harmful deposits, sludge, wear and varnish in a wide range of temperatures. TBN : 7.9	
ENDURO 600 SX	10W-40	API CI-4/CH-4/SL ACEA E7, A3/B3, A3/B4 JASO DH-1 MB 228.3 MAN M3275 MTU Type 2 CAT ECF-1a/ECF-2 Cummins 20076/77/78 Volvo VDS-3 Mack EO-M+ Renault Trucks RLD-2 Deutz DQCIII	ENDURO 600 SX is a synthetic blend heavy-duty engine oil that provides excellent lubrication of today's diesel and gasoline engines operating in severe applications. Keeps engines cleaner and extends engine life. Recommended for European, Japanese and American engines. Strong resistance to oxidation, excellent soot handling and wear control supplemented with superior piston deposit control and reduced sludge formation. Suitable for engines fitted with the Exhaust Gas Recirculation (EGR) system. TBN : 10.5	
ENDURO 500 SX	15W-50	API CG-4/CF/SL ACEA E2, A2/B2 MB 228.3 MAN M3275 Volvo VDS-2 MTU Type 2	ENDURO 500 SX is a high performance semi-synthetic diesel engine oil that provides outstanding protection in severe engine applications. Offers maximum engine durability and extended oil drain. Recommended for use in a wide range of applications in trucks, light-duty and passenger vehicles and 4WDs . Also suitable for gasoline engines. TBN : 9	

Mineral Oils

Products	Grade	Specifications	Description	Packaging
ENDURO 800	15W-40	API CJ-4/CI-4+/CI-4/CF/SM ACEA E9, E7 MB 228.31 MAN M3575 MTU Type 2.1 Volvo VDS-4 Mack EO-O Premium Plus 07 Renault Trucks RLD-3 Cummins CES 20081 CAT ECF-2, ECF-3 DDC 93K218 Global DHD-1 JASO DH-1,2	ENDURO 800 is a unique, latest generation premium heavy-duty motor oil that meets or exceeds the service requirements of virtually all diesel engine manufacturers – for both the latest 2007-emission compliant and older engines. It is suitable especially for virtually all on-highway service applications, and is also suitable for off-highway applications. TBN : 7.8	
ENDURO 600	15W-40	API CI-4/CH-4/SL ACEA E7, A3/B3, A3/B4 JASO DH-1 MB 228.3 MAN M3275 MTU Type 2 CAT ECF-1a/ECF-2 Cummins 20076/77/78 Volvo VDS-3 Mack EO-N Renault Trucks RLD-2 Deutz DQCIII II-05 Detroit Diesel DD93K215	ENDURO 600 is a high performance diesel engine oil that helps extend engine life in the most severe on-and off-highway applications. Delivers exceptional performance in both modern, high-output engines including those with Exhaust Gas Recirculation (EGR), as well as older engines operating on either low or high sulphur fuels. Also meets the API SL specification for gasoline engines and mixed fleets. ENDURO 600 has been specially developed to meet the CAT ECF-2 specification. TBN : 10.5-11	
ENDURO 500	15W-40 15W-50	API CG-4/CF/SL ACEA E2, A2/B2 MB 228.3 MAN M3275 Volvo VDS-2 MTU Type 2	ENDURO 500 Series is a high performance diesel engine oil that provides outstanding protection in severe engine applications. Offers maximum engine durability and extended oil drain. Recommended for use in a wide range of applications in the trucking, mining, construction and agricultural industries. Also suitable for gasoline engines. TBN : 9	

Mineral Oils


Products	Grade	Specifications	Description	Packaging
ENDURO 400	15W-40 15W-50	API CF-4/CF/SL	ENDURO 400 Series is a premium commercial multipurpose engine oil formulated for use in a wide range of applications in the trucking, mining, construction and agricultural industries under normal to severe services. Suitable for gasoline engines as well. TBN : 8.1	
ENDURO 300	SAE 30 SAE 40 SAE 50	API CF/SF	ENDURO 300 Series is a high performance heavy-duty diesel engine oil specifically engineered for performance in intercooled, turbo-charged engines operating under severe on-and off-highway conditions. Recommended in a wide range of applications where a monograde lubricant is required. TBN : 10.2	
ENDURO 200	SAE 30 SAE 40 SAE 50	API CD/SF	ENDURO 200 Series is a quality diesel engine oil formulated for naturally aspirated and moderately turbo-charged heavy-duty diesel engines, particularly engines used in agriculture and road transport. TBN : 6.1	
ENDURO 100	SAE 40 SAE 50	API CC/SC	ENDURO 100 Series is a monograde engine oil dedicated to light-to-medium duty engines without turbocharger. Its stable viscosity at higher temperatures offers optimal lubrication to the moving parts of engines having a stop and go working pattern. TBN : 4	
ENDURO DD	SAE 30 SAE 40 SAE 50	API CF/CF-2	ENDURO DD Series are premium quality monograde engine oils developed for high output, high speed two-cycle diesel engines. These oils are designed to exceed the performance requirements of API CF/CF-2 and are particularly recommended for Detroit Diesel two-cycle diesel engines. TBN : 7.9	

Mineral Oils

Products	Grade	Specifications	Description	Packaging
AXCELLA 400	20W-50 SAE 30	API SL/CF	AXCELLA 400 is a high performance passenger car motor oil for engines running under severe conditions. Maintains overall engine cleanliness preventing the buildup of harmful deposits, sludge and varnish and fights wear and corrosion under a variety of driving conditions. TBN : 7.5	
AXCELLA 200	SAE 40 SAE 50	API SF/CD	AXCELLA 200 Series is a quality passenger car motor oil for engines under normal conditions. It provides adequate protection against wear, corrosion and carbon deposits to the normal duty engine. Its stable viscosity at higher temperature offers optimal lubrication to the moving parts. TBN : 6	
AXCELLA 100	SAE 50	API SC/CC	AXCELLA 100 is a monograde engine oil dedicated to light to medium duty passenger car engine without turbocharger. Its stable viscosity at higher temperatures offers optimal lubrication to the moving parts on engines having a stop and go working pattern. TBN : 4	


Transmissions and Gear Oils

Manual Gear Box and Axle Oils


Products	Grade	Specifications	Description	Packaging
GEARAX SX	75W-90	API GL-4/5, PG-7, PG-2 MIL-L-2105D, MIL-PRF-2105E ZFTE-ML 01, 02, 05, 07, 08 Volvo Service fill Scania Service fill Mack GO-G/5, GO-H/5	GEARAX SX 75W-90 is a fully synthetic, multi-grade gear oil designed for use in equipment operating under a wide range of ambient temperatures, with high levels of tooth loading and shock.	
GEARAX ZF	80W-90	API GL-5	GEARAX ZF SAE 80W-90 is a multigrade heavy-duty automotive gear oil specifically formulated for the lubrication of manual gear boxes, hypoid axles, rear axles and final drives operating under severe services with extreme pressures and shock loading. Recommended when an API GL-5 service is required.	
GEARAX ZF	85W-140	API GL-5	GEARAX ZF SAE 85W-140 is a multigrade heavy-duty automotive gear oil specifically formulated for the lubrication of manual gear boxes, hypoid axles, rear axles and final drives operating under severe services with extreme pressures and shock loading. Recommended when an API GL-5 service is required.	
GEARAX LS	80W-90	API GL-5 ZF TE-ML-05C	GEARAX LS SAE 80W-90 is a high performance automotive gear oil formulated for the lubrication of heavy-duty limited-slip differentials, axles and final drives where extreme pressures and shock loading are expected. Provides an API GL-5 service performance.	
GEARAX EP	SAE 90	API GL-4	GEARAX EP SAE 90 is a mineral heavy-duty automotive gear oil specifically formulated for the lubrication of manual gear boxes, hypoid axles, rear axles and final drives operating under moderate to severe services. Recommended when an API GL-4 service is required.	
GEARAX EP	SAE 140	API GL-4	GEARAX EP SAE 140 is a mineral heavy-duty automotive gear oil specifically formulated for the lubrication of manual gear boxes, hypoid axles, rear axles and final drives operating under moderate to severe services. Recommended when an API GL-4 service is required.	

Transmissions and Gear Oils



Automatic Transmission Oils

Products	Specifications	Description	Packaging
MATIC ATF PREMIUM	GM DEXRON®- IIIIG Ford MERCON Allison C-4 ZF TE-ML 14A Voith G607 MAN 339F MB 236.9	MATIC ATF PREMIUM is a high performance synthetic automatic transmission fluid exceeding the General Motors Dexron III specification. Recommended for most passenger car and commercial automatic transmissions, it is also suitable for power steering systems, hydraulic applications and some manual transmissions where an automatic transmission fluid is specified.	
MATIC ATF	GM DEXRON®-IID Caterpillar TO-2 GM Type A Suffix A Allison C-4	MATIC ATF is a high performance fluid for automatic and manual transmissions in passenger cars and light trucks specifying Dexron® II performance, as well as the related power steering systems.	


Transmission Oils

Products	Grade	Specifications	Description	Packaging
TRANS HD 10W	SAE 10W	Caterpillar TO-4 Komatsu KES 07.868.1 ZF TE-ML-03C & TE-ML-07F API CF/CF-2 Allison C-4	TRANS HD lubricants are transmission oils that specifically meet the Caterpillar TO-4 requirements for off-highway equipment. They are used for lubrication of heavy-duty automatic transmissions with clutch plates, power shifts, final drives that incorporate wet brakes or not.	
TRANS HD 30	SAE 30			
TRANS HD 50	SAE 50			
TRANS HD 60	SAE 60			
TRANS FD-1	SAE 60	CAT FD-1	TRANS FD-1 is recommended for use in all Caterpillar Final Drive and Axles that currently specify the use of Cat FD-1 fluids. It can also be used in transmissions requiring TO-4 fluids that do not contain friction material. It is not recommended for final drives which contain brakes.	
TRANS FLUID 10W	SAE 10W	CAT TO-2 Allison C-4	TRANS FLUID 10W is a high performance hydraulic oil formulated for the lubrication of heavy-duty hydraulic equipment requiring a CAT TO-2 or Allison C4 performance level. It can be used in a wide range of on and off-highway hydraulic applications.	


2T Engine Oils

Products	Specifications	Description	Packaging
AXCELLA 2T SX	JASO FD ISO-LEGD	AXCELLA 2T SX is a high performance semi-synthetic 2-stroke engine oil, which reduces exhaust fumes and provides unmatched protection and cleanliness of the engine. It is recommended for motorcycles, scooters and chainsaws. Coloured red for easier use.	
AXCELLA 2T	JASO FB API TC	AXCELLA 2T is a high performance, two-stroke engine oil for use in motorcycles, snowmobiles, scooters and lean oil/fuel ratio chain saws. Red dyed.	


4T Engine Oils

Products	Grade	Specifications	Description	Packaging
AXCELLA 4T	20W-50	JASO MA2 API SJ	AXCELLA 4T is a high performance conventional four-stroke motorcycle engine oil primarily intended for general use in all types of four-stroke motorcycles and engines. It offers excellent wear and corrosion protection while maintaining high power output.	


Outboard Oil

Products	Specifications	Description	Packaging
AXCELLA OUTBOARD	NMMA TC-W3	AXCELLA OUTBOARD is a superior performance, two-stroke engine oil that exceeds the latest manufacturer's requirements for modern, high performance, water-cooled two-stroke engines used in outboard marine applications.	


Railroad Oils

Products	Grade	Specifications	Description	Packaging
SUPREME RR 40	SAE 40	API CF/SH ACEA A2/B2 MAN 270 Volvo VDS Mack EO/K-2 MTU Type 2 MB-Approval 228.2	SUPREME RR is a high performance diesel engine oil particularly recommended for railroad applications. It has been developed to exceed industry requirements and original equipment manufacturers' standards for intercooled, turbo-charged engines operating under severe on- and off-highway conditions. Its high alkaline reserve provides superior detergency and acid neutralisation to extend the equipment life when operating with high sulfur diesel.	
SUPREME ZF 4013	SAE 40	LMOA Generation 5 API CF, CF-2 EMD of General Motors GE as Generation 4 Long Life Oils	SUPREME ZF Series are supreme performance, zinc-free and chlorine-free oils specially designed to provide excellent engine cleanliness and oil filter life in the modern railroad diesel locomotive engines being employed in severe service. They are formulated with an additive package endorsed by engine manufacturers and meets the requirements of newer diesel locomotive engines of General Electric (GE) and ElectroMotive Division (EMD) of General Motors. They are available in mono- and multigrade with TBN of 13, 17 and 20.	
SUPREME ZF 4017				
SUPREME ZF 4020				
SUPREME ZF 2040	SAE 20W-40			


Tractor Oils

Products	Grade	Specifications	Description	Packaging
AGRILUBE	SAE15W-40	API CG-4, CD/SF ACEA E3 Ford M2C 159B/C, John Deere J27, New Holland 82009201/2/3, Massey Ferguson M1144 & 1139, Ford M2C 86B/C, M2C134D John Deere J20C & J20D, CNH MAT 3525 & 3526, Case MS-1204,6,7,9 Caterpillar TO-2 Eaton M2950S & I-280-S API GL-4 Allison C-4 ZF TE-ML-06A & B, TE-ML-07	AGRILUBE 15W-40 is a high performance, multi-functional lubricant for most farm equipment applications. This STOU fluid provides good performance in diesel and gasoline engines, transmissions, hydraulics, final drives, and oil-immersed brakes operating in agricultural service. AGRILUBE 15W-40 is recommended for use in a wide range of heavy-duty applications and operating environments found in the farming industry.	
TRANSTDH	SAE10W-30	Case MS 1209, 1207 & 1206, John Deere J20C / D, Massey Ferguson M1143 & M1145, Case New Holland MAT 3505 & MAT 3525, M2C134-D & M2C86-C, VCE WB 101 (Volvo 97303), ZF TE-ML 03E / ZF N 13030 TE-ML 05F / ZF N 13011 TE-ML 06K / ZF N 13025 API GL-4	TRANSTDH is a high performance, premium quality lubricant intended for use as a multipurpose tractor transmission and hydraulic fluid. It is formulated from high quality mineral oils and an advanced additive system to achieve outstanding improvements in wet brake and power take off (PTO) chatter control as well as enhanced viscosity retention (shear stability) in field service. It is specifically designed to be used in transmissions, hydraulic systems, oil-immersed brakes, final drives and other ancillary systems fitted to agricultural tractors and off-road equipment.	



Hydraulic Oils

Products	Grade	Specifications	Description	Packaging
FLUID HVI 32	ISO 32	DIN 51524 part 2&3 category HVLP AFNOR NFE 48603 category HV	FLUID HVI Series oils are supreme performance anti-wear hydraulic multigrade oils engineered for wide temperature range applications. They exhibit optimum flow characteristics at sub-zero temperatures and are resistant to shearing and viscosity loss so that system efficiency is maintained and internal pump leakage is minimised at high operating temperatures and pressures. These high quality hydraulic oils with controlled low-temperature flow properties also provide maximised anti-wear protection for high pressure vane, piston and gear pumps.	
FLUID HVI 46	ISO 46	Cincinnati Machine P68, P69, P70 Corrosion ASTM D665 A & B		
FLUID HVI 68	ISO 68	Denison HF-0, HF-1 & HF-2 Eaton Brochure 694 for 35VQ25A		
FLUID HVI 100	ISO 100	Vickers M-2952-S/I-286-S ISO 6743-4		
FLUID HVI 150	ISO 150	GM LS2 ISO 11158 category HV		
FLUID 22	ISO 22	DIN 51524 part 2&3 category HLP AFNOR NFE 48603 category HM Cincinnati Machine P68, P69, P70 Corrosion ASTM D665 A & B Denison HF-0, HF-1 & HF-2 Eaton Brochure 694 for 35VQ25A Vickers M-2952-S/I-286-S ISO 6743-4 ISO 11158 category HM	FLUID Series oils are high performance anti-wear hydraulic oils designed to satisfy a wide range of hydraulic equipment requirements, providing long oil/filter life and optimum equipment protection. They are particularly recommended under severe operating conditions where the strong oil film provides effective protection to hydraulic systems and a good medium for the transmission of power. They are formulated to be used in most hydraulic requirements such as machine tools, forklifts, trucks, hydraulic presses and rams, earthmoving equipment, etc.	
FLUID 32	ISO 32			
FLUID 46	ISO 46			
FLUID 68	ISO 68			
FLUID 100	ISO 100			
FLUID 150	ISO 150			


Turbine and Circulation Oils

Products	Grade	Specifications	Description	Packaging
TS 32	ISO 32	DIN 51 515 Part 1 (L-TD) AAB ALSTOM POWER HTGD 90 117 V0001 S MIL-L-17672 D British Standard BS 489 Siemens TLV 9013 04/01 General Electric GEK 32568 Westinghouse Electric Corp. CEGB Standard 207001 USS Steel 120	TS Series oils are premium grade turbine oils for use in steam turbines, gas turbines and combined cycle units. They are manufactured from very high quality hydrotreated base stocks and zinc free additives that meet the latest manufacturers' requirements.	
TS 46	ISO 46			
TS 68	ISO 68			
TS 100	ISO 100			
TSC 32	ISO 32	DIN 51515-1 L-TD (2001) DIN 51517 CL (1989) DIN 51524 HL (1985) GE GEK 46506D GE GEK 27070 GE GEK 28143A	TSC Series oils are circulation oils for the hydrodynamic lubrication of steam and hydraulic turbines. They are also used in a wide range of industrial applications such as hydraulic circuits, industrial gears, heat transfer, splash and bath lubrication and other circulation systems.	
TSC 46	ISO 46			
TSC 68	ISO 68			
TSC 100	ISO 100			
TSH 220	ISO 220	N/A	TSH Series oils are recommended for the hydrodynamic lubrication of gears used for example in rolling mill cylinder bearings in the iron and steel industry.	
TSH 320	ISO 320			
TSH 460	ISO 460			
TSH 680	ISO 680			


Industrial Gear Oils

Products	Grade	Specifications	Description	Packaging
IGO SX 100	ISO 100	US STEEL 224 / AIST 224 ANSI/AGMA 9005-E02 Cincinnati Lamb P series DIN 51547 Part 3 : 2004-1 Category CLP David Brown S1.53 101 ISO 12925-1 : 1996 Category CKD	IGO SX Series are very high performance 100% synthetic oils designed for use in circulation and splash systems of industrial closed gearboxes and drives. They are formulated with synthetic base oils and specially blended to resist oxidation and chemical degradation. IGO SX are recommended for heavy-duty spur, helical and bevel gears working at temperature above 100 °C (212 °F). They can also lubricate journal and roller bearings under high load and temperature.	
IGO SX 150	ISO 150			
IGO SX 220	ISO 220			
IGO SX 320	ISO 320			
IGO 68	ISO 68	US STEEL 224 / AIST 224 ANSI/AGMA 9005-E02 Cincinnati Lamb P series DIN 51547 Part 3 : 2004-1 Category CLP David Brown S1.53 101 ISO 12925-1 : 1996 Category CKD	IGO Series lubricants are designed to lubricate industrial gearboxes and transmissions. They can be used in circulation or splash systems in closed gearboxes. They are especially formulated to resist oxidation and chemical degradation. Oryx Energies' IGO Series recommended in spur, helical and hypoid gears working at temperatures up to 100°C. They can also be used to lubricate journal and roller bearings.	
IGO 100	ISO 100			
IGO 150	ISO 150			
IGO 220	ISO 220			
IGO 320	ISO 320			
IGO 460	ISO 460			
IGO 680	ISO 680			
IGO HD 1000	ISO 1000	N/A	IGO HD Series are premium grade open gear and wire rope compounds. They have been developed for the lubrication and protection of open gears exposed to extreme temperature and operating conditions.	
IGO HD 1500	ISO 1500			
IGO HD 3200	ISO 3200			
IGO HD 6800	ISO 6800			


Compressor Oils - Air

Products	Grade	Specifications	Description	Packaging
CRP SX 32	ISO 32	DIN 51506 VDL ISO 6743-3 ISO-L-DAB and DAJ	CRP SX Series are advanced synthetic air compressor lubricants developed for use in rotary compressors of screw or vane design, reciprocating compressors and centrifugal compressors. The synthetic base fluids in combination with advanced additive technology provide effective lubrication of equipment working in extreme temperatures and severe operating conditions. These oils are specially designed to provide excellent thermo-oxidative stability and wear protection.	
CRP SX 46	ISO 46			
CRP SX 68	ISO 68			
CRP 32	ISO 32	DIN 51506 (VBL, VCL, VDL) ISO/DP 6521 (DAA, DAB, DAH, DAG)	CRP Series are high performance ashless air compressor oils specially designed to meet the stringent requirements of major compressor manufacturers. These oils are formulated with high quality base oils and carefully selected performance additives to provide excellent protection against oxidation degradation, rust & corrosion and foaming & entrained air.	
CRP 46	ISO 46			
CRP 68	ISO 68			
CRP 100	ISO 100			
CRP 150	ISO 150			


Compressor Oils - Refrigeration

Products	Grade	Specifications	Description	Packaging
FRIGOR N 32	ISO 32	DIN 51503 KAA, KC and KE ISO 6743-3:2003 L-DRA, L-DRE and L-DRG	FRIGOR N Series are high performance naphthenic refrigeration compressor oils specially designed to meet the stringent requirements of major refrigeration compressor manufacturers. These oils are specifically designed for refrigeration systems using non-hydrofluorocarbon refrigerants such as R-11, R-12, R-13B1 R-22, R-113, R-500, R-501, R-502, R-717 (Ammonia - NH3), etc.	
FRIGOR N 46	ISO 46			
FRIGOR N 68	ISO 68			
FRIGOR AB 32	ISO 32	ISO 6743-3:2003 L-DRA, L-DRC, L-DRE, L-DRF and L-DRG	FRIGOR AB Series are high performance fully synthetic refrigeration compressor oils specially designed to meet the stringent requirements of most modern refrigeration and air conditioning systems from major equipment manufacturers. These oils are specifically designed for refrigeration systems using non-hydrofluorocarbon refrigerants such as R-11, R-12, R-13B1, R-22, R-113, R-500, R-501, R-502, R-717 (Ammonia - NH3), etc.	
FRIGOR AB 46	ISO 46			
FRIGOR AB 68	ISO 68			


Air Tool Oils

Products	Grade	Specifications	Description	Packaging
PNEUMA 46	ISO 46	Ingersoll Rand Rock Drill	PNEUMA Series are high performance oils especially developed for use in all types of air tools and pneumatic equipment including rock drills, underground equipment and pavement breakers, in public work, mining and quarrying applications.	
PNEUMA 100	ISO 100			
PNEUMA 150	ISO 150			
PNEUMA 220	ISO 220			
PNEUMA 320	ISO 320			


Heat Transfer Oils

Products	Grade	Description	Packaging
THERM 32	ISO 32	THERM Series are premium quality heat transfer oils intended for use in closed indirect heating systems. They provide excellent oxidation stability and resistance against thermal cracking. They are primarily intended for use in enclosed and sealed heating systems where the maximum bulk oil temperature does not exceed 315°C. In open heating systems, the bulk oil temperature should not exceed 180°C.	
THERM 46	ISO 46		
THERM 68	ISO 68		
THERM 100	ISO 100		


Metal Working Fluids

Products	Description	Packaging
CUT NEAT	CUT NEAT is a high-performance multi-purpose cutting oil, chlorine-free, non-staining and non-corrosive. It is designed for light- to moderate-duty cutting operations and is suitable as a machine tool lubricant and for use in light-duty hydraulic systems.	
CUT SOLUBLE	CUT SOLUBLE is a soluble oil which is used in the preparation of cooling emulsions for turning, milling, grinding and other metal cutting operations, where it is essential for the part being worked on to be properly cooled. It is the most polyvalent soluble oil for general use. Its performance complies with most workshop requirements.	



Transformer Oils

Products	Specifications	Description	Packaging
TRANSFOTX	(uninhibited) IEC 60 296 (82) Class I & II ASTM D 3487 Type 1	TRANSFO TX and LX are high quality mineral insulating oils with very good dielectrical properties and oxidation stability intended for transformers, switchgears and other electrical equipment.	
TRANSFO LX	(inhibited) IEC 60 296 (82) Class I & II ASTM D 3487 Type 1		


Brake Fluids

Products	Specifications	Description	Packaging
BRAKE FLUID PREMIUM	US FMVSS 116 DOT 4, DOT 3 SAE J 1703 SAE J 1704 ISO 4925 (Classes 3 & 4)	BRAKE FLUID PREMIUM is an extra-high performance hydraulic brake fluid for use in automotive disc, drum and anti-skid brake systems and clutch systems. It is based on polyethylene glycol ether technology to provide the highest level of brake and clutch performance in modern as well as older automotive and commercial vehicles.	
BRAKE FLUID	US FMVSS 116 DOT 3 SAE J 1703 ISO 4925 (Class 3)	BRAKE FLUID is a high performance hydraulic brake fluid for use in automotive disc, drum and anti-skid brake systems and clutch systems. It is based on polyethylene glycol ether technology to provide a high level of brake and clutch performance in automotive and commercial vehicles.	


Coolants

Products	Specifications	Description	Packaging
COOLYX ELC	-37°C	COOLYX ELC is a high performance pre-mixed coolant, anti-freeze and corrosion inhibitor. It has been designed for long-term coolant system protection in gasoline, light and heavy-duty diesel engines. Its advanced patented organic corrosion inhibitors help protect metal components including aluminium, iron, steel, copper, and solder alloys.	
COOLYX EXTRA	-25°C	COOLYX EXTRA is a high performance glycol-based engine coolant with a corrosion inhibitor package. It is formulated to provide corrosion protection for all-year-round operation of cooling systems in cars, motorcycles and light-duty diesel engines.	
COOLYX PREMIUM	-18°C	COOLYX PREMIUM is a convenient high performance pre-mix automotive engine coolant consisting of a 33% blend of COOLYX CONCENTRATE with demineralised water.	
COOLYX	-10°C	COOLYX is a glycol based engine coolant with a corrosion inhibitor package. It is formulated to provide corrosion protection for all year round operation of cooling systems in cars, motorcycles and light-duty diesel engines.	
COOLYX CONCENTRATE	N/A	COOLYX CONCENTRATE is a long life antifreeze coolant ready to be mixed with water. It is an ethylene glycol based fluid that provides maintenance-free protection against freezing and boiling but also against corrosion through the use of virtually non-depleting corrosion inhibitors.	


Degreasers

Products	Description	Packaging
CLEAN	CLEAN is a general purpose de-greasing solvent suitable for cleaning grease and oil deposits in most industrial and automotive applications.	
BIOCLEAN	CLEAN EF is an environmentally-friendly, general purpose de-greasing fluid suitable for cleaning grease and oil deposits in most industrial and automotive applications. Being water based, CLEAN EF has no flash point and is therefore extremely safe to use, particularly in poorly ventilated areas.	


Quenching Oils

Products	Grade	Description	Packaging
QUENCH 32	ISO 32	QUENCH 32 is a paraffinic quenching oil with specific flow characteristics for heat transfer requirements.	

Multi-Purpose

Products	Grade	Description	Packaging
MULTI EP	NLGI 00,0,1, 2 & 3	MULTI EP greases are superior quality multipurpose industrial greases with extreme pressure additives and a Lithium soap. They provide extra protection against wear, rusting and water wash-out. They are recommended for a wide range of industrial applications including heavy-duty applications where high unit pressures or shock loads are present, even in humid environments.	
MULTI EPLIX	NLGI 2 & 3	MULTI EPLIX greases are premium lithium complex extreme pressure multi-service greases used in a wide range of applications. They are formulated to provide excellent high temperature performance with excellent adhesion, structural stability and resistance to water wash-out. Suitable for automotive, industrial bearings, frame components and marine equipment due to their excellent water resistance and corrosion protection, they are recommended for components subject to shocks and vibrations or a corrosive environment.	
MULTI LIMOS	NLGI 2	MULTI LIMOS is a high performance extreme pressure lithium grease formulated with molybdenum disulphide (MoS2) for extreme protection in boundary lubrication. It is formulated to provide protection against wear, rust and corrosion, water wash-out and oxidation. MULTI LIMOS is particularly suitable for most demanding industrial applications, especially for heavily loaded bearings under fretting, oscillating or sliding motion.	
MULTI CSM5	NLGI 2	MULTI CSM5 is a high performance calcium sulfonate grease containing molybdenum disulphide (MoS2). It has been developed to meet the demanding lubrication requirements of heavy-duty equipment in construction and mining, as well as heavily loaded bearings. It offers exceptional resistance to water wash-out and corrosion.	
MULTI MOLIX	NLGI 2	MULTI MOLIX is a high performance lithium complex grease designed for slow moving heavily loaded large bearings subject to shock loads. It is formulated to provide excellent high temperature performance with excellent adhesion, structural stability and resistance to water wash-out. Apart from containing anti corrosion & anti oxidation additives, it is charged with molybdenum disulphide (MoS2) for extreme protection in boundary lubrication and heavy shock loads.	
MULTI CSX	NLGI 2	MULTI CS is an extreme pressure water-resistant high temperature calcium sulfonate complex grease. Multipurpose by definition, it is formulated for the lubrication of all kinds of industrial, marine and off shore applications, operating under the most severe conditions (salted water, heat, dust and other pollution).	
MULTI ROD GG20	NLGI 2 & 3	MULTI ROD GG20 is a lithium-based grease with extreme pressure properties and more than 20% micronized graphite. It has very good anti-friction and water insolubility characteristics. It has been designed for drilling. It does not contain any heavy metal.	
MULTI ROD HT	NLGI 2	MULTI ROD HT is an amber-colored premium-quality bentone compound with extreme pressure properties. It resists chemical agents and is insoluble in water. Its oxidation stability enables the product to perform at high temperature. It is recommended in bearings working at low speed and high pressure.	
MULTI ROD PREMIUM	NLGI 2	The MULTI ROD PREMIUM is a bentone compound which contains more than 30% of a unique metal mixture (Copper, Aluminum, Zinc, Graphite, MoS2). It provides exceptional extended life, extreme pressure and anti-wear protection properties. It is recommended in applications such as drill casing thread in hostile environments (water, salt, high pressure, extreme heat, dust...).	

Multi-Purpose

Products	Grade	Description	Packaging
MULTI ROD COPPER	NLGI 1	The MULTI ROD COPPER is a copper-coloured bentone compound which contains more than 20% of micronised Copper. It provides high protection against seizing up in a wide range of temperatures and environments. It is infusible and has extreme pressure properties and is insoluble in water and solvents. This grease can be used from - 15 ° C to + 1100 ° C static and - 15 ° C to + 300 ° C in slow motion. It has been specially developed for assembly and disassembly of threads exposed to high temperature.	
MULTI ROD GLI	NLGI 1.5	The MULTI ROD GLI is a lithium-based grease which contains graphite. It provides exceptional extreme-pressure and anti-wear protection properties. Only a very thin film of grease is required to prevent gear clogging. The water resistance and good adherence makes it indispensable for rust protection of drilling gear threads, gears, cables... its resistance will also provide an extended life and increase greasing intervals.	
MULTI WR 65 MULTI WR 600	NLGI 2	The MULTI WR series are plastic lubricants which provide an exceptional film resistance even at high temperature. It provides excellent wear protection and good extreme-pressure properties, which enable protection against shocks. Those properties remain stable while exposed to water, abrasive dust and corrosive fumes. The grease film strength provides good vibration and noise reduction, as well as preventing crack and scuffing.	
MULTI XAL-G	NLGI 0	The MULTI XAL-G is an aluminum complex grease which include the latest additive technologies and contains micronised graphite. Chlorine free, it doesn't contain any heavy metals either. It is recommended in mills, rotary kilns, dryers and crushers. It is also suitable for slide ways and chain lubrication in the mining industry.	
MULTI XAL-GA MULTI XAL-GA 1 000 MULTI XAL-GA 3 000 MULTI XAL-GA 4 000 MULTI XAL-GA 10 000	NLGI 0/00	The MULTI XAL-GA series are high performance greases made from an aluminium complex soap and high quality base oils, which provide excellent natural adherence properties and resistance to high temperature. The micronised graphite provides extreme pressure properties and the large range of base oils (1000cst/3000cst/4000cst/10 000cst at 40°C) makes it possible to use them in a wide spectrum of applications and temperatures. The MULTI XAL-GA series has been specially designed for extreme industrial applications such as rotary kilns, dryers, crushers, ball mills, slide ways...	
MULTI CAX H1	NLGI 1.5	The MULTI CAX H1 is a high performance NSFH-1 grease made from a Calcium complex soap and high quality Codex base oils. It has excellent antifriction and anti-rust properties as well as high resistance to water wash-out. It can be used in food industry machinery where incidental food contact products are required such as bearings, sealers, bottling machines, conveyors... It can be used between -20°C and +150°C.	
MULTI LICAX2	NLGI 2	The MULTI LICAX 2 is a high performance Lithium/Calcium complex grease with excellent adherence properties providing exceptional water wash-out and water spray out resistance. It also reduces friction and wear. Its green coloured. It is recommended for immersed chains and bearings exposed to maritime environments. It could be used between -25°C and +160°C with a maximum of 180°C.	
COMPOUND ACS		The COMPOUND ACS is an extremely high performance compound made from silicone oil, which is chemically inert and has an extended life. It can be used at extremely low temperatures and has electrical insulation properties. It is recommended for use in electrical and electronic devices and to lubricate plastics and rubber.	

Units

Dynamic Viscosity

The centiPoise (cP) is the standard unit for expressing dynamic viscosity in the international measurement system. It is equivalent to the milipascal-second (1cP = 1mPa*S).

Kinematic Viscosity

The centiStoke is the standard unit for expressing kinematic viscosity in the international measurement system. It is equivalent to the one square millimetre per second (1cSt = 1mm2/S).

ISO viscosity classification

The ISO VG⁽¹⁾ classification is an international system approved by the ISO⁽²⁾. This system classifies oils on the basis of their viscosity. Each ISO VG grade corresponds to the mid point on a range of viscosities, expressed as centistokes (cSt or mm2/S) and measured at 40°C.

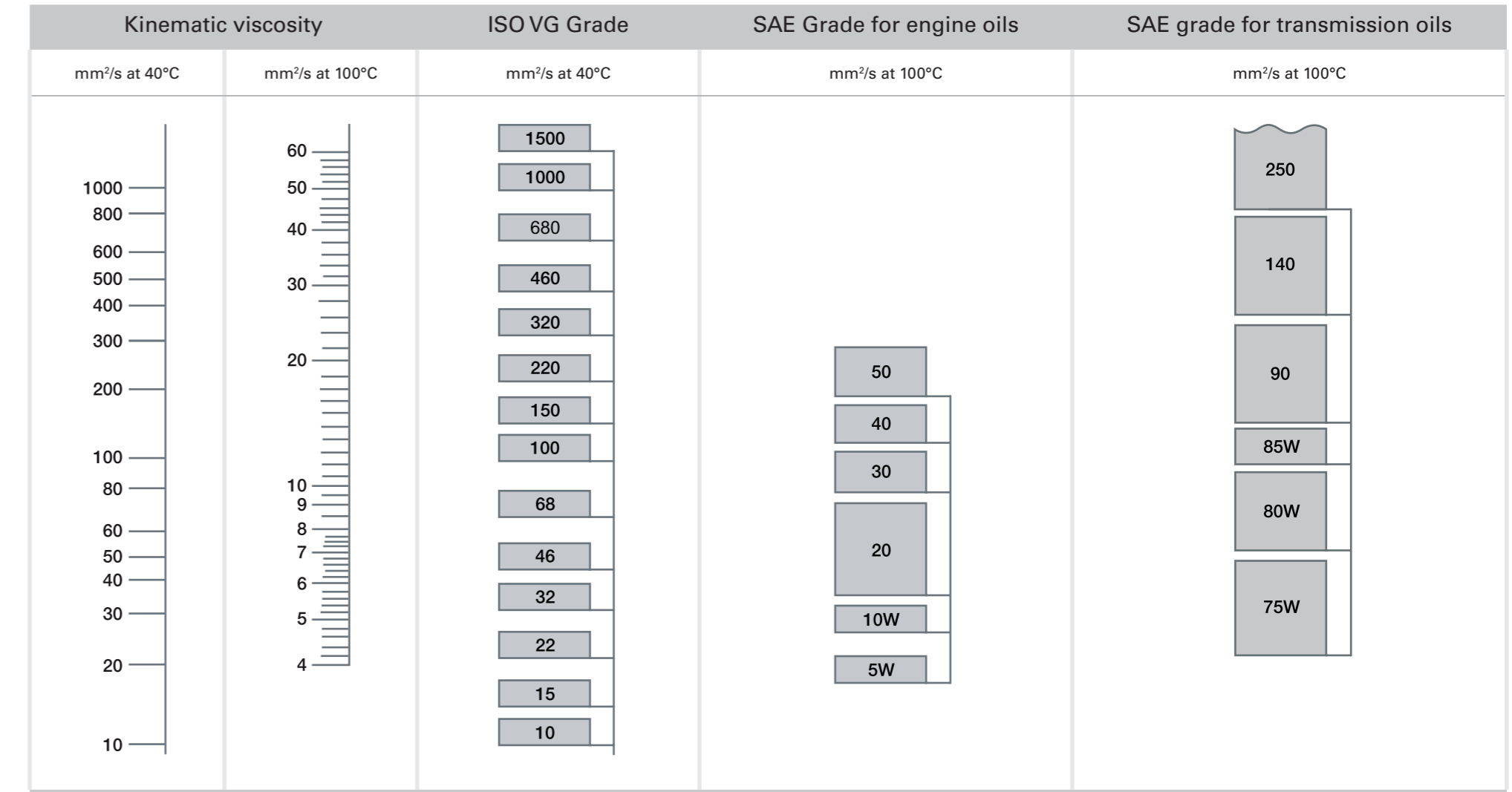
VI = 100

Viscosity Grade	Kinematic Viscosity Range 40°C (in mm ² /s)	Mean Value (in mm ² /s)
ISO VG 2	1,98 - 2,42	2,2
ISO VG 3	2,88 - 3,52	3,2
ISO VG 5	4,14 - 5,06	4,6
ISO VG 7	6,12 - 7,48	6,8
ISO VG 10	9,00 - 11,0	10
ISO VG 15	13,5 - 16,5	15
ISO VG 22	19,8 - 24,2	22
ISO VG 32	28,8 - 35,2	32
ISO VG 46	41,4 - 50,6	46
ISO VG 68	61,2 - 74,8	68
ISO VG 100	90,0 - 110	100
ISO VG 150	135 - 165	150
ISO VG 220	198 - 242	220
ISO VG 320	288 - 352	320
ISO VG 460	414 - 506	460
ISO VG 680	612 - 748	680
ISO VG 1000	900 - 1100	1000
ISO VG 1500	1350 - 1650	1500

NLGI CONSISTENCY CLASSIFICATION

NLGI Grade	Worked Penetration after 60 strokes at 25°C (0,1 mm)
000	445 - 475
00	400 - 430
0	355 - 385
1	310 - 340
2	265 - 295
3	220 - 250

Comparative viscosity classifications



(1) : VG = Viscosity Grade

(2) : ISO = International Standard Organisation

Engine Oil viscosity classification SAE J300 revised January 2015⁽¹⁾

SAE viscosity grade	Low temperature viscosities		High temperature viscosities		
	Cranking viscosity ⁽²⁾ , (mPa.s)	Pumping viscosity ⁽³⁾ , (mPa.s) with no yield stress	Low-Shear-Rate Kinematic Viscosity ⁽⁴⁾ (mm ² /s) at 100°C	High-Shear-Rate Kinematic Viscosity ⁽⁵⁾ (mm ² /s) at 150°C	
	Max.	Max.	Min.	Max.	Min.
0W	6 200 at -35 °C	60 000 at -40 °C	3.8	-	-
5W	6 600 at -30 °C	60 000 at -35 °C	3.8	-	-
10W	7 000 at -25 °C	60 000 at -30 °C	4.1	-	-
15W	7 000 at -20 °C	60 000 at -25 °C	5.6	-	-
20W	9 500 at -15 °C	60 000 at -20 °C	5.6	-	-
25W	13 000 at -10 °C	60 000 at -15 °C	9.3	-	-
8	-	-	4.0	<6.1	1.7
12	-	-	5.0	<7.1	2.0
16	-	-	6.1	<8.2	2.3
20	-	-	6.9	<9.3	2.6
30	-	-	9.3	<12.5	2.9
40	-	-	12.5	<16.3	2.9 (0W-40, 5W-40 & 10W-40)
40	-	-	12.5	<16.3	3.7 (15W-40, 20W-40, 25W-40 & 40)
50	-	-	16.3	<21.9	3.7
60	-	-	21.9	<26.1	3.7

Note : 1 cP = 1 mPa*s ; 1 cSt = 1 mm²/

(1) All values are critical specifications as defined by ASTM D 3244.

(2) ASTM D 5293

(3) ASTM D 4684 Note that the presence of any yield stress detectable by this method constitutes a failure regardless of viscosity

(4) ASTM D 445

(5) ASTM D 4683, CEC L-36-A-90 (ASTM D 4741), or ASTM D 5481

(6) Using ASTM D 2983

(7) Additional low-temperature viscosity requirements may be appropriate for fluids intended for use in light-duty synchronized manual transmissions

Automotive Gear lubricant viscosity classification SAE J306 revised June 05

SAE viscosity grade	Maximum temperature for a viscosity of 150,000 cP ^(6,7)	Kinematic viscosity in cSt at 100°C ⁽⁴⁾	
		Mini. ⁽⁸⁾	Max.
70W	-55 °C ⁽⁹⁾	4.1	-
75W	-40° C	4.1	-
80W	-26 °C	7.0	-
85W	-12 °C	11.0	-
80	-	7.0	<11.0
85	-	11.0	<13.5
90	-	13.5	<18.5
110	-	18.5	<24.0
140	-	24.0	<32.5
190	-	32.5	<41.0
250	-	41.0	-

(8) Limit must also be met after testing in CEC L-45-A-99, Method C (20hours)

(9) The precision of ASTM Method D 2983 has not been established for determinations made at temperatures below -40°C. This fact should be taken into consideration in any producer-consumer relationship

Measurement conversion from US to SI units

Customary Unit	x Factor	SI Unit
Area		Square meter, m²
square foot, ft ²	9,2903	square decimetre, dm ²
square inch, in ²	6,4516	square centimetre, cm ²
square US statute mile, mi ²	2,59	square kilometre, km ²
square yard, yd ²	0,83613	square metre, m ²
Density		Kilogram/metre³, Kg/m³
gram/centimetre ³ , g/cm ³	1000	kilogram/metre ³ , Kg/m ³
ounce-mass/inch ³ , ozm/in ³	1,73	megagram/metre ³ , Mg/m ³
pound-mass/foot ³ , ibm/ft ³	16,018	kilogram/metre ³ , Kg/m ³
pound-mass/imp gallon, lbm/gal	99,776	kilogram/metre ³ , Kg/m ³
pound-mass/US gallon, lbm/gal	119,83	kilogram/metre ³ , Kg/m ³
long ton/yard ³ , lHyd ³	1,3289	megagram/metre ³ , Mg/m ³
Energy or Work		joule, J (N.m, kg.m²/s²)
British thermal unit, Btu (int. Table)	1,05506	kilojoule, kJ
calorie, cal (int. Table)	4,1868	joule, J
foot-pound-force, ft.lbf	1,35582	joule, J
horsepower-hour, hp.lbf	2,6856	megajoule, MJ
metre kilogram-force, m.kgf	9,80665	joule, J
watt-hour, W.h	3,6	kilojoule, kJ
Flow		metre³ or kilogram second, m³ or kg/s
foot ³ /minute, ft ³ /min	0,47195	decimetre ³ /second, dm ³ /s
Imp gallon/hour, gal/h	1,2628	centimetre ³ /second, cm ³ /s
US gallon/hour, gal/h	1,0515	centimetre ³ /second, cm ³ /s
pound-mass/ minute, lbm/min	7,5599	gram/second, g/s
short ton/hour, st/h	0,252	kilogram/second, kg/s
Force		newton, N (kg.m/s²)
dyne	10	micronewton, µN
kilogram-force, kgf	9,80665	newton, N
avdp pound-force, lbf	4,44822	newton, N
poundal, pdl	0.13826	newton, N
Length		metre, m
angstrom, Å	100	picometre, pm
foot, ft	0,3048	metre, m
inch, in	25,4	millimetre, mm
micron, µ	1	micrometre, µm
Int, nautical mile, naut mi (6076.1 ft)	1,852	kilometre, km
US statute mile, mi (5280 ft)	1,6093	kilometre, km
yard, yd	1,9144	metre, m

Customary Unit	x Factor	SI Unit
Mass		Kilogram, kg
avdp ounce-mass, ozm	28,3495	gram, g
avdp pound-mass, lbm	0,45359	kilogram, kg
long ton, lt (2240 lbm)	1,01605	megagram, Mg
metric ton (tonne), mt (2204.6 lbm)	1000	kilogram, kg
short ton, st (2000 lbm)	907,18	kilogram, kg
Power		Watt, W (J/s, kg.m²/s²)
Btu (Int. Table)/hour, Btu/h	0,29307	watt, W
kilo calorie (Int. Table)/hour, kcal/h	1,1639	watt, W
foot-pound-force/second, ft.lbf/s	1,35582	watt, W
horsepower, hp (550ft.lbf/s)	745,70	watt, W
metric horsepower, mhp, PS or CV	735,50	watt, W
Pressure or Stress		pascal, Pa (N/m², kg/m.s²)
normal atmosphere, atm (760 torr)	101,325	kilopascal, kPa
bar, b	100,0	kilopascal, kPa
dyne/centimetre ² , dyne/cm ²	0,1	pascal, Pa
inch of water @ 39.2°F (4°C)	249,08	pascal, Pa
Kilogram-force/centimetre ² , kgf/cm ²	98,0665	kilopascal, kPa
millimetre of Hg @ 0°C (32°F), torr	133,322	pascal, Pa
pound-force/inch ² , psi	6,89476	kilopascal, kPa
long ton/inch ² , lt/in ²	15,4443	magapascal, Mpa
Viscosity dynamic		pascal-second, Pa.s
Viscosity kinematic		metre ² /second, m ² /s
centipoise, cP	1,0	millipascal-second, mPa.s
centistoke, cSt	1,0	millimetre ² /second, mm ² /s
Volume		cubic metre, m³
barrel (oil), bbl (42 US gal, 35 Imp gal)	0,15899	cubic metre, m ³
cubic foot, ft ³ (1728 in ³)	28,317	cubic decimetre, dm ³
Imp gallon, gal (160 Imp oz, 0.16054 ft ³)	4,5461	litre, l
US gallon, gal (128 US oz 0.13368 ft ³)	3,7854	litre, l
cubic inch, in ³	16,387	cubic centimetre, cm ³
litre, L	1,0	cubic decimetre, dm ³
US fluid ounce, fl oz	29,574	cubic centimetre, cm ³
US liquid pint, liq pt (16 fl oz)	0,47318	litre, l
US liquid quart, liq qt (32 fl oz)	0,94635	litre, l
cubic yard, yd ³	0,76455	cubic metre, m ³

ONE OPERATION

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