



#### PETRONAS Marine Solutions







# Everything you need to set sail towards a more sustainable future

PETRONAS Marine provides a full suite of marine fuels, lubricants and LNG bunkering services in key global hubs, delivering affordable and sustainable energy to meet the needs of our business partners. Our global network ensures a reliable supply of cleaner energy solutions, fully supporting the shipping industry in meeting the IMO 2020 requirements for lower emissions and a better future.

#### **PETRONAS** is ready for the world of tomorrow, today

PETRONAS Lubricants International (PLI) is part of the PETRONAS Group. With 10 blending plants, over 30 sales offices and products distributed in more than 100 countries worldwide, PLI's global network of over 240 scientists, technical professionals and engineers anticipate future mobility and mechanical challenges and opportunities, then research and develop advanced fluid technology solutions to meet tomorrow's challenges, today.

We strive to deliver maximum value to our consumers, customers and the markets in which they operate — while minimising our environmental impact and pioneering high-performance fluids that are manufactured in increasingly low CO<sub>2</sub> environments.

We are always moving forward. We are PETRONAS.

#### **Strengthening progressive** businesses from within

As the world comes together to tackle the climate crisis, shipping businesses need strong partners to help them develop the resilience they need to progress and grow in sustainable ways. PETRONAS Industrial Solutions works as one with our customers to strengthen your operations from within, developing a deep understanding of your needs and delivering against them with innovative services and energy-efficient solutions that set a clear path to a carbon neutral future. Together we drive industrial resilience and deliver sustainable performance.

#### **PETRONAS Industrial Solutions**

**Future Focused** 

















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## Main Lubricants



#### **Cylinder Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Silub 20 LS50	50	20	0.938	215	19.2	-9	248	Marine Cylinder Oil for two-stroke modern cross-head low speed marine diesel engines running heavy fuel with sulfur levels from 0.0%-1.0%. Suitable for Gas, Distillate or ULSFO.	MAN     Wärtsilä (*)     Sulzer (*)     WinGD (*)  (*) Engines running fuel with sulfur levels up to 0.10%.
PETRONAS Silub 40 LS50	50	40	0.92	204.8	18.9	-9	248	Marine Cylinder Oil for two-stroke modern cross-head low speed marine diesel engines running heavy fuel with sulfur levels from 0.5%-2.0%. Suitable for VLSFO.	• MAN
PETRONAS Silub 70 LS50	50	70	0.932	198.2	18.52	-9	266	Marine Cylinder Oil for two-stroke modern cross-head low speed marine diesel engines running heavy fuel with sulfur levels from 1.0%-2.5%.	• MAN
PETRONAS Silub 100 LS50	50	100	0.952	207.4	19.61	-9	260	Marine Cylinder Oil for two-stroke modern cross-head low speed marine diesel engines running heavy fuel with sulfur levels from 2.0% - 3.5%.	• MAN
PETRONAS Silub N 20 LS50	50	20	0.938	215	19.2	-9	248	Marine Cylinder Oil for low-speed crosshead engines running on low sulphur fuel of 0.1% - 0.5%, but may also be used on those with higher sulphur content, VLSFO, MDO, LNG or Diesel.	Meets the minimun OEM requirements
PETRONAS Silub N 40 LS50	50	40	0.92	204.8	18.9	-9	248	Marine Cylinder Oil for low-speed crosshead engines running on low sulphur fuel of 0.1% - 0.5%, but may also be used on those with higher sulphur content, VLSFO, MDO, LNG or Diesel.	Meets the minimun OEM requirements
PETRONAS Silub N 70 LS50	50	70	0.932	198.2	18.52	-9	266	Marine Cylinder Oil for modern low-speed 2-stroke marine diesel engines using Heavy Fuel Oil (HFO) of up to 3.5% wt sulphur content.	Meets the minimun OEM requirements
PETRONAS Silub N 100 LS50	50	100	0.952	207.4	19.61	-9	260	Marine Cylinder Oil for newer low-speed, 2-stroke marine engines running on residual fuels of 1.5% - 3.5% sulphur especially during slow steaming conditions. Please follow OEM guideline for specific engine types.	Formulations are based on a proven additive technology that has been established with a range of engine builder approvals including MAN B+W, Sulzer and GMT.

#### System Oils

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Disrol 5 LS30	30	5	0.891	104.00	11.43	-15	232	Marine System Oil for low speed two-strokes crosshead diesel engines.	Meets the minimun OEM requirements
PETRONAS Disrol N 5 LS 30	30	5	0.891	104.00	11.43	-15	232	Marine System Oil for low-speed crosshead diesel engines including those employing system oil for piston cooling; but may be used in oil-lubricated stern tubes, deck machinery and other ancillary equipment requiring a multipurpose SAE 30 engine oil.	Meets the minimun OEM requirements



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#### **Trunk Piston Engine Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Disrol 200 SAE 40	40	20	0.894	130.8	13.90	-12	256	Marine Trunk Piston Engine Oil for medium-speed diesel engines burning up to $1.0\%$ sulfur content.	• API CF • MAN
PETRONAS Disrol 300 SAE 30	30	30	0.909	93	11.00	-9	240	Marine Trunk Piston Engine Oil for medium-speed diesel engines burning up to 3.0% sulfur content.	MAN     Wartsila
PETRONAS Disrol 300 SAE 40	40	30	0.912	145	14.70	-9	242		
PETRONAS Disrol 400 SAE 30	30	40	0.912	97	11.8	-21	242	Marine Trunk Piston Engine Oil for medium-speed diesel engines burning up to 3.5% sulfur content.	MAN     Waukesha
PETRONAS Disrol 400 SAE 40	40	40	0.916	142	14.50	-21	250		
PETRONAS Disrol 500 SAE 40	40	50	0.916	139	14.00	-9	250	Marine Trunk Piston Engine Oil for medium-speed diesel engines burning up to 4.0% sulfur content.	MAN     Wartsila
PETRONAS Disrol 550 SAE 40	40	55	0.916	145	14.7	-9	250	Marine Trunk Piston Engine Oil for medium-speed diesel engines burning up to 4.5% sulfur content.	MAN     Wartsila
PETRONAS Disrol 12 HS30	30	12	0.889	83.85	10.52	-15	250	Marine Trunk Piston Engine Oil for high-speed diesel engines burning up to 1.0% sulfur content.	Meets the minimun OEM requirements
PETRONAS Disrol 12 HS40	40	12	0.897	153.4	14.98	-9	250		
PETRONAS Disrol 15 MS40	40	15	0.900	145.5	14.8	-15	266	Marine Trunk Piston Engine Oil for high-speed diesel engines burning up to 1.0% sulfur content.	Meets the minimun OEM requirements
PETRONAS Disrol N 200 SAE 40	40	20	0.894	130.8	13.90	-12	256	Marine Trunk Piston Engine Oil for use in high and medium-speed diesel engines. Recommended for use on 4-stroke engines running on distillate fuel with sulphur content of up to 1.5%.	Meets the minimun OEM requirements
PETRONAS Disrol N 30 MS30	30	30	0.909	93	11	-9	240	Marine Trunk Piston Engine Oil for use in highly rated, medium speed diesel engines. Generally recommended for use in the main propulsion and auxiliary	Meets the minimun OEM requirements
PETRONAS Disrol N 30 MS40	40	30	0.912	145	14.70	-9	242	engines of deep-sea vessels, coastal and river ships, and stationary power plants that are running on residual fuels with sulphur content of up to 3.5%.	
PETRONAS Disrol N 40 MS40	40	40	0.916	142	14.50	-21	250	Marine Trunk Piston Engine Oil for use in highly rated, medium speed diesel engines. Generally recommended for use in the main propulsion and auxiliary engines of deep-sea vessels, coastal and river ships, and stationary power plants that are running on residual fuels with sulphur content of up to 3.5%.	Meets the minimun OEM requirements
PETRONAS Disrol N 12 SAE 40	40	12	0.897	153.4	14.98	-9	250	Marine Trunk Piston Engine Oil for use on 4-stroke engines running on distillate fuel with sulphur content of up to 1.5%.	Meets the minimun OEM requirements

## Auxilliary Lubricants



#### **Automatic Transmission Fluid**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Tutela ATF D3			0.855		7.1	-48	195	Automatic Transmission Fluid for conventional automotic transmissions, power steering and hydraulic systems.	• JASO M315-2013 1 • AM315-2013 2A • DEXRON®-I IH/DEXRON®-I IG • Allison C-4 • CAT TO-2 • Ford Mercon® • Bosch TE-ML 09, ZF TE-ML 09

#### **Compressor Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Compressor A M2 68 PETRONAS Compressor A M2 100	68 100		0.875 0.877	68 100	8.8 11.2	-30 -27	220 220	Marine Air Compressor Oil for up to 2,000 hours oil life in service, even when operating at maximum discharge temperatures up to 100°C.	• DIN 51506 VDL (1985-09) • ISO 6743-3: DAG

#### **Gear Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Gear MEP 68	68		0.887	68	8.5	-30	230	Gear Oils for various types of enclosed industrial gears operating under normal to	AGMA 9005-F16 AS     David Brown S1.53.101
PETRONAS Gear MEP 100	100		0.877	100	11	-27	240	heavy duty conditions.	<ul><li>DIN 51517 Part III</li><li>Fives Cincinnati Machine Gear</li></ul>
PETRONAS Gear MEP 150	150		0.880	150	14.4	-27	240		<ul> <li>GM LS 2 EP Gear Oil</li> <li>ISO 12925-1 CKC/CKD</li> <li>U.S. Steel 224</li> </ul>
PETRONAS Gear MEP 220	220		0.881	220	18.5	-21	250		
PETRONAS Gear MEP 320	320		0.884	320	23.7	-21	240		
PETRONAS Gear MEP 460	460		0.894	460	29.9	-18	240		
PETRONAS Gear MEP 680	680		0.932	680	38.3	-18	250		
PETRONAS Tutela MTF 300 80W-90	80W-90		0.890		13.6	-30	192	Multigrade Gear Oil for delivering optimized synchronizer performances and component durability for modern manual transmissions over their standard service life.	• API GL-4

#### **Heat Transfer Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS HTO 32	32		0.868	32	5.4	-15	220	Marine Heat Transfer Oil for open and enclosed heat transfer systems operating at high bulk oil temperatures.	• DIN 51522 • ISO 6743-12 Family Q

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#### **Hydraulic Fluids**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Hydraulic HV 32	32		0.873	32	6.2	-33	220	Marine Hydraulic Fluids for a wide range of mobile and industrial hydraulic equipment	ASTM D 6158 HV     Bosch Rexroth RD90220
PETRONAS Hydraulic HV 46	46		0.877	46	7.9	-33	220	operating under normal to heavy duty conditions, subjected to high variations in	<ul> <li>DIN 51524 Part II HLP and III HVLP (2006)</li> <li>Eaton 03-401-2010</li> </ul>
PETRONAS Hydraulic HV 68	68		0.880	68	10.5	-30	230	operating and/or ambient temperatures, including cold start-ups.	• Fives Cincinnati P-68/P-69/P-70 • GM LS-2 (2004)
PETRONAS Hydraulic HV 100	100		0.877	100	14.2	-27	240		<ul> <li>ISO 11158 HV (FDIS 2008)</li> <li>Parker Denison HF-0, HF-1, HF-2</li> <li>SAE MS1004</li> <li>SEB 181 222 (2007)</li> <li>US Steel 126, 127 and 136</li> </ul>
PETRONAS Hydraulic HV 150	150		0.884	150	18.7	-27	240		
PETRONAS Hydraulic HVZF 15	15		0.861	15	3.77	-51	160		
PETRONAS Hydraulic HVZF 32	32		0.871	32	6.2	-33	220	Marine Hydraulic Fluids for a wide range of mobile and industrial hydraulic equipment operating under normal to heavy duty conditions and presence of water that may cause filter blockage.	<ul> <li>DIN 51524 Part II HLP and III HVLP (2006)</li> <li>Eaton Brochure 03-401-2010</li> <li>Fives Cincinnati P-68, P-69 and P-70</li> <li>ISO 11158 HV (FDIS 2008)</li> <li>Parker Denison HF-0, HF-1, HF-2</li> </ul>



#### **Turbine Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm <sup>2</sup> /s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Jenteram G 32 PETRONAS Jenteram G 46 PETRONAS Jenteram G 68 PETRONAS Jenteram G 100	32 46 68 100		0.853 0.859 0.868 0.879	32 46 68 100	5.6 7.1 9.3 11.1	-33 -33 -30 -33	220 230 230 254	Marine Turbine Oils for use in modern steam, light and heavy-duty gas turbines, combined cycle turbines with or without associated gear boxes.	• ALSTOM HTGD 90117 • ASTM D-4304 Type I, II and III • BRITISH STANDARD BS 489 • DIN 51515 Part I and III • DIN 51524 Part I • FIVES CINCINNATI P-38 • GB 11120-2011 L-TSA and L-TGA • GENERAL ELECTRIC GEK-101941A • GENERAL ELECTRIC GEK-32568K • ISO 8068 L-TSA & L-TGA • ISO 8068 L-TSE & L-TGE • ISO 11158 HH and HL • SIEMENS AG TLV 9013 05 • SIEMENS AG TLV 9013 04 • SIEMENS Std 65/0027 Issue 7 (2016) • Solar ES 9224 Class II



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#### **Other Engine Oils**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Speci	fication
PETRONAS Sprinta T500			0.860		7.6	-39	100	Outboard Engine Oil for 2-stroke (TC W3) engines.	• API TC • JASO FC	• ISO EGC • TISI
PETRONAS Urania 3000 LS 15W-40	15W-40	9.7	0.875		14.2		>220	Diesel Engine Oil that is suitable for Euro VI and Euro V heavy duty diesel applications including modern, high-output, low emission engines fitted with emission control systems using DPF, SCR, DOC and EGR technologies. It is also suitable for older turbocharged and naturally aspirated diesel engine generations running on high or ultra-low sulphur diesel and biodiesel.	• API CK-4 • ACEA E7 / E9 • Cummins CES 20086 • Deutz DQC III-10 LA • Mack EOS-4.5 • MB-Approval 228.31 • MTU CAT. 2.1 • Renault RLD-3	• Ford WSS
PETRONAS Urania 3000 15W-40 CI-4	15W-40	>11	0.876		14.3	-36	>230	Diesel Engine Oil that is suitable for all types of heavy-duty diesel applications including modern, high-output, low emission engines fitted with emission control system using SCR and EGR technology. It is also suitable for new and old turbocharged and naturally aspirated diesel engines running on high or ultra-low sulphur diesel and biodiesel.	• API CI-4 / API SL, SJ • ACEA E7 • Global DHD-1 • JASO DH-1 • Cummins CES 20078 • Detroit Diesel DSF 93K215 • Deutz DQC III	DTFR 15B110     (MB 228.3)     Mack EO-N     MTU Oil Category 2     Renault VI RLD-2     Volvo VDS-3     CAT ECF-2, ECF-1a     Cummins CES 20077     MAN M3275     IVECO 18-1804     Class T2 E7
PETRONAS Urania 500 SAE 40 CF	40	6	0.892	40	13.7		>240	Monograde Diesel Engine Oil for all types of older commercial vehicle diesel applications and high revolution turbocharged diesel engines.	• API CF	
PETRONAS Urania 800 15W-40	15W-40	6.4	0.872		14.2		>220	Diesel Engine Oil for all types of heavy-duty diesel applications including turbocharged and naturally aspirated diesel engines running on high or ultra-low sulphur diesel.	• API CF-4 • MAN 271 • MB 228.1 • MTU Type 1 • Volvo VDS	



## Synthetic Lubricants



### Biodegradable Lubricants



Greases

PETRONAS Industrial Solutions | Auxilliary Lubricants

#### **Synthetic Lubricants**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Compressor A SYN AB 32	32		0.867	27.19	4.53	-63	204	Air Compressor Oils with Alkyl Benzene	Meets the minimun OEM requirements
PETRONAS Compressor A SYN AB 68	68		0.866	55.39	5.97	-42	182	(AB) synthetic base oils for rotary screw and reciprocating air compressors for refrigerating compressors using refrigerants	
PETRONAS Compressor A SYN AB 100	100		0.865	93.03	7.87	-39	202	R22, R114 or similar.	
PETRONAS Compressor A SYN DOE 68	68		0.960	71.00	7.58	-45	244	Air Compressor Oils with high Diester (DOE) synthetic base oils for reciprocating air	• ISO 6743-3: DAJ
PETRONAS Compressor A SYN DOE 100	100		0.958	96.67	9.07	-41	280	compressors, heavy duty turbo-chargers and vacuum pumps (ISO VG 68).	
PETRONAS Compressor A SYN PAO 32	32		0.837	32	6.0	-58	244	Air Compressor Oil with Polyalphaolefin (PAO) synthetic base oils for flooded rotary screw	• ISO 6743-3: DAB and DAJ
PETRONAS Compressor A SYN PAO 46	46		0.840	46	7.8	-55	268	compressors and liquid ring vacuum pumps.	
PETRONAS Compressor A SYN PAO 68	68		0.847	68	10.6	-52	268		
PETRONAS Compressor A SYN PAO 100	100		0.848	100	14.0	-46	271		
PETRONAS Compressor A SYN POE 46	46		0.954	50	7.5	-39	113	Air Compressor Oils with Polyol Ester (POE) synthetic base oils for use in reciprocating,	• ISO 6743-3: DAB and DAJ
PETRONAS Compressor A SYN POE 68	68		0.963	68	9.2	-33	112	rotary screw and hydrovance compressors with critical gears and bearings.	
PETRONAS Gear SYN PAG 220	220		1.058	220	39.8	-42	>290	Gear Oil with high viscosity index water soluble Polyalkylene Glycol (PAG) synthetic base oil for various types of enclosed industrial gears operating under normal to extremely heavy duty conditions.	• DIN 51517 Part III • ISO 12925 CKPG, CSPG, CTPG
PETRONAS Gear SYN PAO 220	220		0.86	220	25.8	-45	252	Gear Oils with Polyalphaolefin (PAO) synthetic base oils for various types of	David Brown     RENK ZAN 36011     S1.53.106     (ISO VG150 to 460)
PETRONAS Gear SYN PAO 320	320		0.86	320	34.6	-42	258	enclosed gear drives operating under normal to extremely heavy duty conditions.	DIN 51517 Part III     GED50E35     HANSEN     (ISO VG220 to 680)     ISO 6743-6 CKSMP     OSiemens MD Approval for Flender Gear drive     - Revision 15 T 7300     Table A-c     U.S. Steel 224 "
PETRONAS Gear SYN PGS 220	220		1.0 - 1.1	217	36	-37	280	Gear Oils with Polyalkylene Glycol (PAG) synthetic base oils for worm gear applications and other applications requiring high temperature resistant lubricant.	Meets the minimun OEM requirements

#### **Biodegradable Lubricants**

Lubricants	SAE / SO	BN	Density (kg/l) 15°C"	Viscosity (mm²/s) 40°C	Viscosity (mm²/s) 100°C	Pour Point (°C)	Flash Point COC (°C)	Application	Specification
PETRONAS Hydraulic SYN BIO 32 PETRONAS Hydraulic SYN BIO 46	32 46		0.936	32 46	6.3 8.7	-39 -42	282	Biodegradable anti-wear hydraulic fluids for mobile equipment operating in extreme cold or hot weather conditions as well in environmentally sensitive areas.	<ul> <li>Blue Angel</li> <li>Eaton Brochure 03-401-2010</li> <li>EU Ecolabel (UK/027/023)</li> <li>ISO 15380 HEES</li> <li>JCMAS P042 (HKB)</li> <li>Parker HF-1 / HF-2 / HF-6</li> </ul>
PETRONAS Hydraulic SYN BIO 68	68		0.923	68	10.6	-42	297		<ul> <li>Swedish Standard SS 15 54 34         Category AAV (2015)</li> <li>USDA Biobased</li> <li>VDMA 24568 &amp; 24570</li> <li>Vessel General Permit (VGP)</li> <li>PETRONAS Hydraulic SYN BIO Series meet or exceeds key industrial specifications and OEM requirements including the new marketing leading EU-Ecolabel having a renewable content &gt;80% and biodegradability of &gt;60% against OECD 301B.</li> </ul>





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#### Greases

Greases	NLGI Grade	Thickener	Temperature Range (°C)	Drop Point (°C)	Worked Penetration (°C)	Application	Specification
PETRONAS Grease CaSX 2	2	Calcium Sulphonate Complex	-30°C to +140°C (Max. +180°C)	>309	280	Calcium Sulphonate Complex Grease for industrial, marine and off-road applications. Suitable for heavily loaded applications.	• DIN 51502 KP2N-30 • ISO 12924 L-XC(F)DIB2
PETRONAS Grease LI 2 PETRONAS Grease LI 3	3	Lithium Lithium	-30°C to +120°C (Max. +130°C) -20°C to +120°C	198 198	285 238	Non-EP Lithium Greases for industrial general- purpose applications. Suitable for electric motor bearings, anti-friction bearings including the rotating outer race and vertical shaft configurations, plain bearings up to 3600 rpm, machine tools and a variety of marine applications.	<ul> <li>DIN 51502 K2K-30</li> <li>ISO 12924 L-XC(F)CHA2</li> <li>DIN 51502 K3K-20</li> <li>ISO 12924 XCCHA3</li> </ul>
PETRONAS Grease LI EP 0 PETRONAS Grease LI EP 1	0	Lithium	-30°C to +130°C -30°C to +130°C	189	365 321	Extreme pressure Lithium Grease for multipurpose applications, lubrication of both plain and anti-friction bearings even where severe or shock loads are experienced.	<ul> <li>DIN 51502 KP0K-30</li> <li>ISO 12924 XCCHB0</li> <li>DIN 51502 KP1K-30</li> <li>ISO 12924 XCCHB1</li> </ul>
PETRONAS Grease LI EP 2 PETRONAS Grease LI EP 3	3	Lithium Lithium	-30°C to +120°C (Max. +130°C) -20°C to +130°C	196 198	276		<ul> <li>DIN 51502 KP2K-30</li> <li>ISO 12924 L-XC(F)CHB2</li> <li>DIN 51502 KP3K-20</li> <li>ISO 12924 XCCHB3"</li> </ul>
PETRONAS Grease LIX EP 2/170	2	Lithium Complex	-20°C to +140°C (Max. +180°C)	271	280	Extreme pressure Lithium Grease for general purpose application. Suitable for lubricating roller and friction bearings under extreme pressure load at high temperature, wheel bearing and prop shaft lubrication and industrial equipment components.	<ul><li>DIN 51502 KP2N-20</li><li>GC-LB</li><li>ISO 12924 L-XB(F)DIB2</li></ul>
PETRONAS Grease LiX MEP 2	2	Lithium Complex	-20°C to +140°C (Max. +180°C)	265	282	Extreme pressure Lithium Complex Grease with solid additives specially developed for lubrication of heavy-duty applications where good adhesive properties are required.	• DIN 51502 KPF2N-20 • ISO 12924 L-XB(F)DIB2



#### **PETRONAS Expert Solutions**

#### Your progress. Our priority.

By partnering with you to solve the problems you face today and tomorrow, we can help you move ahead and develop your business. Our insight-driven services help you improve reliability, reduce your operating costs and free up your potential – all because we share your goals and priorities. Expert Solutions from PETRONAS is your secret weapon in your mission to do more, use less and grow faster. It's how our passion for progress can help take you to an exciting and more sustainable future.

#### **Equipment**

Downtime is the enemy of progress. With predictive maintenance and support for your equipment and fluids, we can identify problems before they take hold - so you can plan ahead and focus on success.

- Diagnostics Oil condition monitoring
- Fluid recommender







#### **Operations**

With so much happening in your business, it's easy to lose sight of what matters. Our Expert Solutions use tools, services and support to help you achieve greater progress more quickly – and improve efficiency while reducing operational costs.

• Fluid-i for remote fluid level visibility and alerts for automatic stock orders









#### People

With the right knowledge in your team, you can progress further, faster. That's why we work with your people to build their skills and help them work more effectively day in, day out.

Technical training programme



Scan the QR code for more information

