



oils • greases • fluids

O R I G I N A L



O I L

THE CATALOGUE CONTAINS THE MAJORITY OF VECO PRODUCTS THAT ARE INTENDED FOR MOTORIZATION, INDUSTRY AND AGRICULTURE. WE WOULD LIKE TO DRAW YOUR ATTENTION THAT IT IS ALSO POSSIBLE TO IMPLEMENT SOME ADDITIONAL LUBRICANTS OF PECULIAR REQUIREMENTS.

IF YOU HAVE ANY QUESTIONS CONCERNING OUR PRODUCTS OR YOU WANT TO MAKE A PROPOSAL OF UNTYPICAL PRODUCTS, PLEASE CONTACT OUR SALES DEPARTMENT.

IMPORTANT: The properties of some catalogue products might change because the production technology is constantly improved and some process standards are modified.

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VECO MOTOR OILS

Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
MODERN MOTOR OILS MEETING THE HIGHEST QUALITY REQUIREMENTS FOR FOUR-STROKE PETROL ENGINES				
VECO Syntex SL/CF 0W/40 5W/40 5W/50	14,5 14,5 18,0	220 220 230	-48 -45 -45	This modern, multi-grade, synthetic oil is intended to be used in four-stroke petrol engines. It can also be applied in diesel engines of vans and passenger cars. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements. Meets following specifications: API SL/CF, ACEA A3-02/B3-98 issue 2, CCMC G-5/PD-2, VW 502.00/505.00, MB 229.1, BMW Longlife 98.
VECO Syntex Energy SL/CF 5W/30	11,5	230	-51	This modern, multi-grade, synthetic oil is intended to be used in four-stroke petrol engines. It can also be applied in diesel engines of vans and passenger cars. It belongs to the so-called energy conserving oils. Meets following specifications: API SL/CF, ACEA A3-02/B3-98 issue 2, CCMC G-5/PD-2, VW 500.00/505.00., MB 226.5, BMW Longlife 98.
VECO SemiSyntex SL/CF 10W/40	14,5	225	-36	This modern, multi-grade, semi-synthetic oil is intended to be used in four-stroke petrol engines. It can also be applied in diesel engines of vans and passenger cars. Meets following specifications: API SL/CF, ACEA A3-02/B3-98 issue 2, CCMC G-5/PD-2, VW 502.00/505.00., MB 229.1, BMW Longlife 98.
VECO Ultra Plus SL/CF 15W/40	14,5	235	-30	This modern, multi-grade, mineral oil is intended to be used in four-stroke petrol engines. It can also be applied in diesel engines of vans and passenger cars. The oil maintains very good properties in various operating conditions of the engine. Meets following specifications: API SL/CF, ACEA A3-02/B3-98 issue 2, VW 502.00/505.00., MB 229.1, BMW Longlife 98.

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Propane-oil SemiSyntex 10W/40	14,5	210	-36	This high quality, multi-grade, semi-synthetic oil is intended to be used in four-stroke, spark-ignition engines that are powered with propane-butane gas and petrol. Meets following specification: API SJ.
MODERN MOTOR OILS MEETING THE HIGHEST QUALITY REQUIREMENTS FOR DIESEL ENGINES				
VECO Syntex Diesel 5W/40	14,5	220	-45	This modern, multi-grade, synthetic oil is intended to be used in normally charged and turbocharged diesel engines. This oil is recommended for modern, powerful engines of passenger cars, vans and trucks. Meets following specifications: API CH-4/CG-4/CF-4/CF/CF-2, ACEA E3-98/B3-98, MB 228.3, MB 229.1, MAN M 3275, VOLVO VDS-2, Renault RVI E3R /RLD, ZF TE-ML-07.
VECO Challenger Premium XHPD 10W/40	14,2	240	-42	This modern, multi-grade, semi-synthetic oil is intended to be used in the newest, normally charged and turbocharged four-stroke diesel engines. The oil guarantees excellent operating properties in various conditions, the economic operation of the engine and meets the high requirements for exhaust fumes cleaning. This oil may also be applied in petrol engines of vans and passenger cars. Meets following specifications: SAE J300, API CH-4/CG-4, SL/CF, ACEA E4-99 Issue 2; E5-02; E7-04, ACEA A3-98; B3-98 Issue 2; B4-02, DAF HP2, MAN M 3277; 3277 low ash, MB 228.5; MB 229.1, MTU Oil Type 3, Renault RVI RXD, VOLVO VDS-2, VW 505.00. Approval: MAN M3277
VECO Challenger SHPD 15W/40	14,5	230	-30	This high quality, multi-grade, mineral oil is intended to be used in the newest, normally charged and turbocharged diesel engines operating in hard conditions. The Oil of the SHPD type allows for the extension of the oil exchange periods and maintains excellent operating properties in various conditions. This oil meets the highest requirements of the renowned car manufacturers. It can also be used in petrol engines of vans and passenger cars. Meets following specifications: API CH-4/CG-4/CF-4/CF/CF-2/SJ, ACEA E3-96 Issue 2/B3-98/A3-98, MB 229.1, MAN 3275, MAN 271, Renault RVI E3R/RLD, ZF TE-ML-07, Cummins CES 20 072/1/6, Mack EO-M Plus, MTU Type 2. Approval: MB 228.3; MAN M 3275; VOLVO VDS-2

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Challenger Turbo 10W/40	14,5	220	-39	This modern, multi-grade, semi-synthetic oil is intended to be used in the newest, normally charged and turbocharged four-stroke diesel engines operating in hard conditions. The oil is particularly recommended for long distance vehicles. This oil may also be used in petrol engines of vans and passenger cars. Meets following specifications: SAE J300, API CI-4/CH-4/CG-4/CF-4/CF/SL, ACEA E2-96/E4-99, ACEA 02 - E5/E3/B4/B3/A3, ACEA 04- E7/A3/B3/B4, MB 228.3, MB 229.1, MAN 3275, Volvo - VDS-3, DHD-1, Mack EO-M Plus 11, Renault - RVI RLD-2, Cummins 200,71/2/6/7/8, ZF TE-ML 07C, Caterpillar CAT ECF1.
VECO Challenger Turbo 15W/40	14,5	220	-33	This modern, multi-grade, mineral oil is intended to be used in the newest, normally charged and turbocharged four-stroke diesel engines operating in hard conditions. The oil maintains excellent operating properties in various conditions, therefore it is particularly recommended for long distance vehicles. This oil can also be used in petrol engines of vans and passenger cars. Meets following specifications: SAE J300, API CI-4/CH-4/CG-4/CF-4/CF/SL, ACEA E2-96/E4-99, ACEA 02 - E5/E3/B4/B3/A3, ACEA 04- E7/A3/B3/B4, MB 228.3, MB 229.1, MAN 3275, Volvo - VDS-3, DHD-1, Mack EO-M Plus 11, Renault - RVI RLD-2, Cummins 200,71/2/6/7/8, ZF TE-ML 07C, Caterpillar CAT ECF1.
VECO SemiSyntex Diesel 10W/40	14,5	210	-36	This modern, multi-grade, semi-synthetic oil is intended to be used in the newest normally charged and turbocharged four-stroke diesel engines operating in hard conditions. The oil is particularly recommended for long distance vehicles. This oil may also be used in petrol engines of vans and passenger cars. Meets following specifications: API CG-4/CF-4/SJ, ACEA E2-96/B3-98/A3-98, CCMC D4/PD2, MAN 271, MIL-L-2104, MB 228.1, VOLVO VDS.
CAR ENGINE OILS				
VECO Propan oil 15W/40	14,5	230	-30	This multi-grade, mineral oil is intended to be used in four-stroke, spark-ignited engines powered with LPG (Liquefied Petrol Gas) and petrol. Meets following specification: API SF/CC, (CCMC G-2/D-1).
VECO Ultra SH/CD 15W/40	14,5	230	-30	This multi-grade, mineral oil is intended to be used in normally charged and turbocharged four-stroke petrol and diesel engines of passenger cars. Meets following specification: API SH/CD, (CCMC G-4/PD-2).



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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Motor oil HD-DB Super SF/CC 15W/40 20W/50	14,5 18,0	230 250	-33 -27	This multi-grade, mineral oil is intended to be used in four-stroke petrol and diesel engines of passenger cars and vans. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements. Meets following specification: API SF/CC, (CCMC G-2/D-1).
VECO Special SD 20W/40	15,0	250	-30	This multi-grade, mineral oil is intended to be used in four-stroke petrol engines of vans and passenger cars. Meets following specification: API SD.
VECO Special SC 20W/30	11,0	240	-24	This multi-grade, mineral oil is intended to be used in medium speed, four-stroke petrol engines operating in moderate conditions. Meets following specification: API SC.
VECO Turbo Diesel Plus 10W/30 15W/40	10,8 14,5	220 225	-39 -33	This multi-grade, mineral oil is intended to be used in modern, powerful, turbocharged, four-stroke diesel engines operating in very hard conditions. It can also be applied in petrol engines operating in hard conditions. This oil is particularly recommended for highly loaded short distance cars driving in „stop and go“ town traffic. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements. This oil may also be used in petrol engines of vans and passenger cars. Meets following specifications: API CG-4/CF-4/SH/SJ, ACEA E2-96/B2-96/A3-96, MB 229.1, MAN 271, VOLVO VDS, Alison C-4.
VECO Super Turbo Diesel 15W/40 15W/50 20W/50	14,5 18,5 18,0	225 230 235	-33 -30 -24	This multi-grade, mineral oil is intended to be used in modern types of turbocharged, diesel car engines operating in hard conditions. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements. Meets following requirements: API CH-4/CG-4/CF-4, ACEA E2-96/B3-98, (CCMC D4/PD2) MIL-L- 2104, Caterpillar TO-02, MB 228.1, MAN 271, VOLVO VDS. Approval: MB 228.1; MAN 271; VOLVO VDS-2
VECO Turbo Diesel 15W/40	14,5	230	-33	This multi-grade, mineral oil is intended to be used in modern types of turbocharged, diesel car engines operating in very hard conditions. This oil may also be used in petrol engines of vans and passenger cars. Meets following specifications: API CF-4/SJ, CCMC D-4 PD2/D-4, ACEA E2-96/B3-98/A3-98, MAN 271, MB 228.1, VOLVO VDS, MIL-L-2104 C/D/D, MIL-L-46152 B. Approval: MB 228.1; MAN 271; VOLVO VDS

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Super Motor oil HD-C IL Turbo 10W/30 15W/40 20W/40 20W/50	11,0 14,5 14,5 18,0	220 230 240 250	-33 -30 -27 -24	<p>This multi-grade, mineral oil is intended to be used in turbocharged, diesel engines operating in very hard conditions. It can also be applied in petrol engines operating in hard conditions. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements.</p> <p>Meets following specifications: API CE/SF, (CCMC D-4 PD-2/G-3), ACEA E2-96/A2-96, Caterpillar TO-2.</p>
VECO HD Diesel Formula 15W/40 15W/50 20W/50	14,5 18,0 18,0	230 240 250	-30 -27 -24	<p>This multi-grade, mineral oil is intended to be used in normally charged and turbocharged, four-stroke diesel engines operating in hard and very hard conditions. This oil is recommended for the use in highly loaded buses, trucks and truck tractors both in „stop and go“ town traffic and for long distance. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements.</p> <p>Meets following specifications: API CD/CD-II/CE/CF, CCMC D-4, MAN 271, MB 228.1, VOLVO VDS.</p>
VECO Motor oil HD-C LD 10W/30 15W/40 20W/40 15W/50 20W/50	11,0 14,5 14,5 18,0 18,0	220 230 240 230 250	-33 -30 -27 -27 -24	<p>This multi-grade, mineral oil is intended to be used in turbocharged, diesel engines operating in hard and very hard conditions. It can also be applied in petrol engines operating in moderate and hard conditions. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements.</p> <p>Meets following specifications: API CF/CD/SF, (CCMC D-2 PD-1/G-1), ACEA E-1/96 issue 2, MB 227.1.</p>
VECO Oliolus HX 30 40 10W 10W/30 15W/40 20W/50	11,0 14,5 6,5 10,0 14,5 18,0	230 250 220 220 230 250	-27 -24 -36 -33 -30 -24	<p>This mineral oil is intended to be used in normally charged and turbocharged, four-stroke diesel engines operating in hard and very hard conditions. It is recommended for all types of vans, trucks, buses and agricultural tractors. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements.</p> <p>Meets following specifications: API CD, (CCMC D-4), ZN-PTX-OS-14301.</p>
VECO Oliolus HD 30 40 15W/40	11,0 14,5 14,5	220 240 230	-27 -24 -30	<p>This mineral oil is intended to be used in normally charged and turbocharged, four-stroke diesel engines operating in moderate and hard conditions. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements.</p> <p>Meets following specifications: API CC, ZN-PTX-OS-14201, ZN-PTX-OS-14202.</p>



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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Oliolus DB 30 40 50	11,0 14,5 18,0	220 240 250	-27 -24 -21	This mineral oil is intended for the summer time use, in normally charged diesel engines operating in conditions with light and medium loads. The viscosity grade needs to be selected according to the operating conditions, a vehicle type and engine requirements. Meets following specifications: API CB, PN-75/C-96088/02: Superol CB, ZN-PTX-OS-14101.
VECO Oliolus DB 15W/40	14,5	230	-30	This multi-grade, mineral oil is intended to be used in lightly and medium loaded diesel engines without supercharging and four-stroke petrol engines operating in mild conditions. Meets following specifications: API CB/SC, ZN-PTX-OS-14009.
OILS FOR STATIONARY ENGINES				
VECO Gas PC 40	14,0	230	-21	This oil is intended to be used in stationary four-stroke engines powered with natural gas or biogas. This oil may also be used in two-stroke engines. Meets following specification: ZN-PTX-OS-18001.
VECO Gas JKG 40	14,0	200	-27	This modern, high quality, mineral oil is intended to be used in medium and high speed four-stroke stationary engines powered with aggressive biogases. The oil is particularly recommended for the use in engines powered with burrow gases containing aggressive impurities like hydrogen sulfide on a level higher than 1000 ppm and chlorine higher than 60 ppm. This oil can also be used for the lubrication of piston compressors powered with burrow gas and biogas. Meets following specifications: Caterpillar 3500/3600, Waukesha 7044/7042, Jenbacher – instruction nr.: 1000-1105, Jenbacher – instruction nr.: 1000-0125.
VECO Gas JKW 40	14,0	210	-27	This modern, high quality, mineral oil is intended to be used in medium and high speed four-stroke stationary engines powered with moderately aggressive biogases. The oil is particularly recommended for the use in engines powered with burrow gases with moderate contents of aggressive impurities like hydrogen sulfide and halides. This oil can also be used for the lubrication of piston compressors powered with burrow gas and biogas. Meets following specifications: Caterpillar 3500/3600, Waukesha 7044/7042.
VECO Gas DI 40	14,0	240	-24	This oil is intended for the use in stationary two-stroke spark-ignited engines powered with natural gas. Meets following specification: ZN-PTX-OS-18101.

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
MARINE ENGINE OILS				
VECO Unioil SC-22	22,0	290	-12	This oil is intended for the lubrication of the cylinders of powerful marine engines and stationary power generators. Meets following specification: BN-75/0535-42.
VECO Marinol CD 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine supercharged diesel engines with high heat loads. Meets following specifications: API CD, ZN-PTX-OS-14311.
VECO Marinol CC 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine supercharged diesel engines with high heat loads, in power generating units and in compressors. Meets following specifications: API CC, ZN-PTX-OS-14211.
VECO Marinol CB 30 40 50	11,0 14,5 18,0	220 240 250	-30 -24 -21	This oil is intended for the use in marine diesel engines, without supercharging, with high heat loads. Meets following specifications: API CB, ZN-PTX-OS-14111.
VECO Marinol M 12 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine, four-stroke trunk piston, medium and high speed diesel engines without crosshead, with a single lubrication system, supercharged with high heat loads and powered with fuel with sulphur contents up to 1 %. Meets following specifications: API CD, ZN-PTX-OS-14221.
VECO Marinol M 15 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine, four-stroke trunk piston, medium and high speed diesel engines without crosshead, with a single lubrication system, supercharged with high heat loads and powered with fuel with sulphur contents up to 1 %. Meets following specifications: API CD, ZN-PTX-OS-14321.
VECO Marinol M 20 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine, four-stroke trunk piston, medium speed engines without crosshead (the oil lubricates both the cylinders of the head engines and the circulation system) powered with residual fuel with sulphur contents up to 1 %. Meets following specifications: API CD, ZN-PTX-OS-14411.
VECO Marinol M 30 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine, four-stroke trunk piston, medium speed engines without crosshead (the oil lubricates both the cylinders of the engines and the circulation system) powered with residual fuel with sulphur contents up to 1,5 %. Meets following specifications: API CD, ZN-PTX-OS-14421.



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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Marinol M 40 30 40	11,0 14,5	220 240	-30 -24	This oil is intended for the use in marine, four-stroke trunk piston, medium speed engines without crosshead (the oil lubricates both the cylinders of the engines and the circulation system) powered with residual fuel with sulphur contents up to 2,0 %. Meets following specifications: API CD, ZN-PTX-OS-14431.
VECO Marinol M 70 40 50	14,5 18,5	240 250	-24 -21	This oil is intended for the use in marine, two-stroke, low speed engines with crosshead (the oil lubricates only the cylinders of the head engines) powered with residual fuel with sulphur contents up to 3,5 %. Meets following specification: ZN-MDX-OS-14441.
OILS FOR TWO-STROKE PETROL ENGINES				
VECO Mix Syntex S	8,5	240	-33	This synthetic, ecological motor oil is intended to be used in modern, powerful two-stroke engines, air cooled or equipped with water cooling systems (closed or taking water from the lake/river/sea), propelling motor boats, yachts and water scooters. The oil does not contain a solvent and requires mechanical mixing with fuel. Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion of 1 : 100 needs to be applied. Meets following specifications: API TC, TC+, TD, NMMA TC-W3, fluidity and mixability grade according to SAE J 1536 M/F-3.
VECO Mix Syntex SHC F	7,5	70	-45	This synthetic, motor oil is intended to be used in modern, two-stroke engines with a cylinder volume of 20 - 500 cm ³ , air or water cooled (with the exception of motor boat engines). Meets following specifications: ZN-MDX-OS-17210, API TC+, ISO Global GC/GD, JASO FC, fluidity and mixability grade according to SAE J 1536 M/F-3.
VECO Mix Super M	8,0	80	-39	This semi-synthetic, ecological, motor oil is intended to be used in modern, two-stroke engines with a cylinder volume of 20-500 cm ³ , air or water cooled (with the exception of motor boat engines). Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion of 1 : 50 needs to be applied. Meets following specifications: API TC, JASO FB/FC, fluidity and mixability grade according to SAE J 1536 M/F-3.

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Mix Super P	7,0	80	-39	This ecological, semi-synthetic motor oil is intended to be used in modern, air or water cooled, two-stroke engines that drive combustion saws, lawn mowers and other similar equipment (with the exception of motor boat engines). Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion of 1 : 50 needs to be applied. Meets following specifications: API TC, API FB/FC, fluidity and mixability grade according to SAE J 1536 M/F-3.
VECO Mix Sport	6,5	75	-42	This motor oil is intended for the use in modern, powerful, two-stroke engines, air cooled or equipped with water cooling systems (closed or taking water from the lake/river/sea), propelling motor boats, yachts and water scooters. Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion of 1 : 100 needs to be applied. Meets following specifications: API TC+ , NMMA, TC-W3, TC-W2, fluidity and mixability grade according to SAE J 1536 M/F-3.
VECO Mix Universal M	22,0 (w 50 °C)	70	-42	This motor oil is intended for the use in modern, two-stroke engines with a cylinder volume of 20 - 500 cm ³ , air or water cooled (with the exception of motor boat engines). Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion from 1 : 30 to 1 : 50 needs to be applied. Meets following specification: API TC.
VECO Mix P	20,0 (w 50 °C)	70	-39	This motor oil is intended for the use in modern, two-stroke engines with a cylinder volume of 20 - 500 cm ³ , air or water cooled (with the exception of motor boat engines) driving combustion saws, lawn mowers and other equipment used in the forest and garden industries. Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion from 1 : 40 to 1 : 50 needs to be applied. Meets following specification: API TC.
VECO Mix 2T Special P	13,5	250	-27	This motor oil is intended to be used in modern, two-stroke engines with a cylinder volume of 20 - 500 cm ³ , air or water cooled (with the exception of motor boat engines) driving combustion saws, lawn mowers and other equipment used in the forest and garden industries. The oil does not contain a solvent and requires mechanical mixing with fuel. Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion from 1 : 40 to 1 : 50 needs to be applied. Meets following specifications: ZN-PTX-94/OS-17002, API TC, SAE 40.

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Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
OTHER ENGINE OILS				
VECO Racing RX 4-T 10W/50 15W/50	17,5 18,0	220 230	-45 -42	This multi-grade, synthetic motor oil is intended to be used in four-stroke, air or water cooled motorcycle engines. It is adapted to the lubrication of the wet clutch, gearbox and starter. Meets following specifications: API SJ, ACEA A3, JASO T 903: MA for SAE 15W/50 and MB for SAE 10W/50.
VECO Grassol SG/CD 30	10,5	210	-27	This motor oil is intended for the use in modern lawn mowers, garden tractors and other equipment driven by four-stroke air cooled petrol engines. Meets following specification: API SG/CD.
VECO Lokomotiv HD 40	15,0	250	-24	This motor oil is intended to be used in diesel engines in locomotives operating in hard conditions. Meets following specifications: API CD/CF, ZN-PTX-OS-10061.
VECO Lokomol Super CD 40	14,5	250	-27	This high quality motor oil is intended for the use in diesel engines in locomotives operating in hard conditions. Meets following specifications: API CD/CF, ZN-PTX-OS-10062.
VECO HD 30	10,5	240	-24	This special motor oil is intended for the testing and running-in of engines. It can be used as a first fill motor oil when applying a shortened time period between exchanges. Meets following specification: ZN-PTX-OS-14305.
VECO-Lux 10	11,0	230	-21	This universal oil is intended to be used in petrol and diesel engines operating in mild conditions. Meets following specification: PN-73/C-96085.

VECO CAR GEAR OILS

Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
AUTOMATIC GEARBOX OILS				
VECO MATIC III	6,5	200	-45	The newest, universal oil is recommended for automatic gears and power steering gear systems. It is also used in hydraulic systems of vehicles and self-propelled or stationary machinery. The use of this oil allows for the significant extension of the time period between exchanges and the considerable reduction of wearing of gear parts. Meets following specifications: General Motors Dexron® III, Ford Mercon®, Mercedes Benz 236.1, ZF TE-ML 11, Voith, Caterpillar TO-2, Alison C-4, ZN-PTX-OP-12028.
VECO MATIC II D	6,5	190	-42	This universal oil is recommended for automatic gears and power steering gear systems. It is also used in hydraulic systems of vehicles and self-propelled or stationary machinery. Meets following specifications: General Motors Dexron® II-D, Ford Mercon®, Caterpillar TO-2, Alison C-4, Mercedes Benz 236.1, ZF TE-ML 09/11/14, Voith, ZN-PTX-OP-12027. Approval: MB 236.1; ZF TE-ML 09/11/14/VOITH G 607
OILS FOR MANUAL GEARBOXES AND MAIN GEARS				
VECO Rotax Premium LS 80W/90	15,5	220	-30	This high quality, gear oil of the Limited Slip type is intended for the lubrication of the main gears with autoblocking differential. It might be applied in manual gearboxes and main gears of various mechanical vehicles. Meets following specifications: API GL-5, MIL-L-2105D, MAN 342M-2, ZF TE-ML 05A/05C/07A/12E/16B/16C/16D/17B/19B, ZN-PTX-OP-13115.
VECO Rotax Syntex GL-5 75W/90 75W/140	15,5 26,5	230 250	-48 -42	The highest quality, synthetic gear oil is recommended for manual gearboxes and main gears of vehicles operating in hard conditions with high and variable loads at a broad range of temperatures. Due to the contents of synthetic base stocks, this oil is very stable and guarantees non-failure operation of the gear during its complete life cycle. Two viscosity grades allow to choose the proper selection according to the operating conditions, gear construction and requirements of the manufacturer. Meets following specifications: API GL-5, MIL-L 2105D, ZF TE-ML 01/05/07.

VECO CAR GEAR OILS

Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Rotax Super GL-5 80W 80W/90 85W/90 85W/140	10,0 15,0 17,5 27,0	220 220 220 240	-33 -30 -24 -18	<p>This modern, gear oil is recommended for manual gearboxes and main gears of vehicles operating in conditions with high loads at a broad range of temperatures for which the manufacturer recommends the use of oil of the API GL-5 grade. It is manufactured both as single-grade and multi-grade oil. Four viscosity grades allow to choose the proper selection according to the operating conditions, gear construction and requirements of the manufacturer.</p> <p>Meets following specifications: API GL-5, MIL-L 2105D, ZF TE-ML 01/05/07, ZN-PTX-OP-13115.</p>
VECO Rotax GL-4 80W 80W/90 85W/140	10,0 15,0 27,0	220 220 240	-30 -30 -18	<p>This universal, gear oil is recommended for manual gearboxes and main gears of vehicles for which the manufacturer recommends the use of oil of the GL-4 or MIL-L-2105 grade. It is manufactured both as single-grade and multi-grade oil. Three viscosity grades allow to choose the proper selection according to the operating conditions, gear construction and requirements of the manufacturer.</p> <p>Meets following specifications: API GL-4, MIL-L-2105, ZN-PTX-OP-12115.</p>
VECO PL PZ	31,0 20,0	310 270	-9 -18	<p>The summer gear oil VECO PL and the winter gear oil VECO PZ are intended for the lubrication of lightly loaded (non-hypoid) gears of mechanical vehicles.</p> <p>Meets following specifications: PN/C-96100, ZN-PTX-OP-14015.</p>
GEAR-HYDRAULIC OILS				
VECO Hydromatic TO-4 10W 30 10W/30	6,2 10,5 10,5	220 250 230	-36 -30 -33	<p>This high quality, multifunctional gear-hydraulic oil is intended for vehicles operating in conditions with high loads where the gearbox, main gear, hydraulic fittings and wet brakes are lubricated by a single oil system. It is used in heavy machinery and vehicles of manufacturers such as: Komatsu, Caterpillar, Allison, Dana, Eaton or Dresser. It is manufactured both as single-grade and multi-grade oil. Three viscosity grades allow to choose the proper selection according to the operating conditions, gear construction and requirements of the manufacturer.</p> <p>Meets following specifications: Caterpillar TO-4, Allison C-4, ZF TE-ML 03, ZF TE-ML 01, Komatsu KES 07.802, Eaton, Dana, Dresser, ZN-MDX-OH-12301.</p>
VECO Hydromatic TO-2 10W 30 10W/30	6,2 10,5 10,5	220 250 230	-36 -30 -33	<p>This gear-hydraulic oil is intended for vehicles operating in conditions with low and average loads where the gearbox, main gear, hydraulic fittings and wet brakes are lubricated by a single oil system. Three viscosity grades allow to choose the proper selection according to the operating conditions, gear construction and requirements of the manufacturer.</p> <p>Meets following specifications: Caterpillar TO-2, Allison C-3, API CD.</p>

VECO HYDRAULIC AND GEAR OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
OLEJE HYDRAULICZNE				
VECO Hydron Premium HD 15 22 32 46 68 100	13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110	180 200 210 220 230 240	-45 -42 -39 -39 -36 -30	<p>This high quality, mineral oil is intended to be used in modern hydraulic systems. Due to its high viscosity index, it has the properties of multi-grade oil. It is intended for hydraulic systems that operate at a large range of temperatures. This oil has excellent anti-wear properties. It is recommended for hydraulic systems with high pressure and high temperatures. Six viscosity grades allow to choose the precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Meets the specifications for hydraulic oils of the HV, HVLP grade: DIN 51524 part 2 and 3, PN-94/C-96057-6, Vickers M-2950-S, Vickers I-286-S3, AFNOR NF E 48-603, Cincinnati Milacron P-68, P-69, P-70, Hägglunds Dennison HF-0, ISO 3448, PN-78/C-96098, ZN-PTX-OH-10005.</p>
VECO Hydron HD 10 15 22 32 46 68 100 150	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	160 180 200 210 220 230 240 250	-39 -36 -36 -33 -30 -27 -24 -21	<p>This high quality, mineral oil is intended for the use in modern hydraulic systems. The oil has excellent anti-wear properties. It is recommended for hydraulic systems with high pressure and high temperatures. Eight viscosity grades allow to choose a precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Possesses the permission of the Central Mining Institute NR B/1577/2006 allowing the oil to be applied in underground mining excavations.</p> <p>Meets the specifications for hydraulic oils of the HM, HLP grade: DIN 51524 part 2, PN-91/C-96057-5, AFNOR NF E 48-603, David Brown S1.53.101, CETOP RP91H, Vickers M-2950-S, Vickers I-286-S3, ISO 3448, PN-78/C-96098, ZN-PTX-OH-10004.</p>

VECO HYDRAULIC AND GEAR OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Hydron 10 15 22 32 46 68 100 150	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	160 180 200 210 220 230 240 250	-39 -36 -36 -33 -30 -27 -24 -21	<p>This mineral, hydraulic oil is intended to be used in hydraulic systems with high pressure and high temperatures. Eight viscosity grades allow to choose a precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Meets the specifications for hydraulic oils of the HL grade: DIN 51524 part 1, PN-91/C-96057-4, AFNOR NF E 48-603, ISO 3448, PN-78/C-96098, ZN-PTX-OH-10003.</p>
SPECIAL HYDRAULIC OILS				
VECO Hydron Premium ZF 15 22 32 46 68 100	13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110	190 200 220 230 240 240	-45 -42 -39 -39 -36 -30	<p>The highest quality, ash and zinc free, mineral oil is intended to be used in modern hydraulic systems. Due to its high viscosity index, it has the properties of multi-grade oil. It is destined for hydraulic systems operating at a large range of temperatures. This oil has excellent anti-wear properties. It is recommended for hydraulic systems with high pressure and high temperatures. Six viscosity grades allow to choose a precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Meets following specifications: ZN-MDX-06/OH-13005, DIN 51524 part II: HLP, DIN 51524 part III: HVLP, ISO 11158: L-HV, PN-94/C-96057-6: L-HV, Vickers M-2950-S, Vickers I-286-S, General Motors LH-03-2, LH-04-2, LH-06-2, Cincinnati Milacron P-68, P-69, P-70, Hägglunds Dennison HF-0, HF-1, HF-2, U.S. Steel 127, ISO 3448: VG-15 to VG-100, PN-78/C-96098, ZN-MDX-OH-13005.</p>
Veco Hydron ZF 10 15 22 32 46 68 100 150	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	160 190 200 220 230 240 240 250	-39 -36 -36 -33 -30 -27 -24 -21	<p>The highest quality, ash and zinc free, mineral oil is intended to be used in modern hydraulic systems. This oil has excellent anti-wear properties. It is recommended for hydraulic systems with high pressure and high temperatures. Eight viscosity grades allow to choose a precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Meets following specifications: ZN-MDX-06/OH-13004, DIN 51524 part 2: HLP, ISO/DP 11158: L-HM, PN-91/C-96057-5: L-HM, Denison HF-0, HF-1, HF-2, Cincinnati Milacron P-68, P-69, P-70, General Motors LH-03-2, LH-04-2, LH-06-2, U.S. Steel 127, Vickers I-286-S, Vickers M-2950-S, ISO 3448: VG-10 to VG-150, PN-78/C-96098, ZN-MDX-OH-13005.</p>

VECO HYDRAULIC AND GEAR OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Hydron Special D 10 15 22 32 46 68	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8	160 180 200 210 220 230	-39 -36 -36 -33 -30 -27	<p>This modern, mineral oil with washing properties has excellent anti-wear properties. The oil is intended for the use in hydraulic systems with high pressure and high temperatures. Six viscosity grades allow to choose a precise selection according to the operating conditions and the type of hydraulic system.</p> <p>Meets following specifications: DIN 51502: HLP-D, DIN 51524 part 2, Vickers M-2950-S, Vickers I-286-S3, ISO 3448, ZN-PTX-OH-10006.</p>
VECO BOckXs-OL 26	41,0	220	-42	<p>This high quality, mineral oil has the improved viscosity-temperature properties. It is recommended for hydraulic systems that operate at a large range of temperatures. This oil has excellent anti-wear properties. It is destined for the use in hydraulic drives, hydraulic assistance and control systems.</p> <p>Meets following specifications: DIN 51524 part 3: HV, AFNOR NF E 48-603, Vickers M-2950-S Vickers I-286-S3, General Motors Dexron® suffix A, ZN-PTX-OH-10105, BN-73/0535-35.</p>
HYDRAULIC GEAR OILS				
VECOKOP HP 68 100 150	61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	240 245 250	-30 -27 -27	<p>This multifunctional, mineral oil is intended to be used in mechanical gears and hydraulic systems of machinery used in the mining industry.</p> <p>Possesses the permission of the Central Mining Institute NR B/1578/2006 allowing the oil to be applied in underground mining excavations.</p> <p>Meets following specifications: DIN 51524 part 2: HLP, DIN 51517 part 3: CLP, ISO/DP 11158: L-HM, PN-91/C-96057-5: L-HM, PN-80/C-96056, ISO 3448, ZN-PTX-OH-12005.</p>
HYDRAULIC FLUIDS				
VECOKOP E	46	210	-24	<p>This hydraulic fluid is applied in the form of an emulsion with water in a concentration of 0,5%. The emulsion with Vecokop E oil base meets the specifications for non-flammable hydraulic fluids and it is recommended for the use in force hydraulics in underground mining excavations.</p> <p>Possesses the permission of the Central Mining Institute NR B/1579/2006 allowing the oil to be applied in underground mining excavations.</p> <p>Obtained hygienic certification of the State Hygiene Institute HK/B/1251/01/2005.</p> <p>Meets following specifications: PN-C-96047:1998, PN-EN ISO 12922:2003, ZN-PTX-R-10106.</p>



VECO HYDRAULIC AND GEAR OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
OLEJE PRZEKŁADNIOWE				
VECO Matranol Syntex SHC				<p>The highest quality, synthetic oil is intended for the lubrication of highly loaded industrial gears with various meshing types that operate at temperatures below 140°C. It is characterised by its exceptional capacity to transfer high loads, its excellent thermal stability and outstanding anti-corrosion properties.</p> <p>Fifteen viscosity grades allow to choose a precise selection according to the operating conditions and the type of gear.</p> <p>Meets following specifications: Flender Rev. 3, DIN 51517 part 3, US Steel 224, Cincinnati Milacron P-74, AGMA 9005.94 EP, David Brown S1.53.101E, Muller Weingarten, SEB 181.226, ISO 3448, ZN-MDX-OP-15001.</p>
32	28,8 ÷ 35,2	220	-54	
46	41,4 ÷ 50,6	220	-51	
68	61,2 ÷ 74,8	230	-48	
100	90 ÷ 110	230	-45	
150	135 ÷ 165	240	-42	
220	198 ÷ 242	240	-42	
320	288 ÷ 352	240	-39	
460	414 ÷ 506	240	-39	
680	612 ÷ 748	240	-36	
1000	900 ÷ 1100	250	-36	
1500	1350 ÷ 1650	250	-33	
2200	1980 ÷ 2420	250	-33	
3200	2880 ÷ 3520	250	-30	
4600	4140 ÷ 5060	250	-27	
6800	6120 ÷ 7480	250	-27	
VECO Matranol XP				<p>The highest quality, mineral oil is intended for the lubrication of highly loaded industrial gears with various meshing types. It meets the newest and most demanding specification for industrial gear oils: Flender Rev. 3 of 10.08.2001. It is manufactured in a few viscosity grades that allow to choose a selection according to the operating conditions and the type of gear.</p> <p>Meets following specifications: Flender Rev. 3, DIN 51517 part 3, US Steel 224, Cincinnati Milacron P-74, AGMA 9005.94 EP, David Brown S1.53.101E, Muller Weingarten, SEB 181.226, ISO 3448, ZN-MDX-OP-11116.</p> <p>Approval: Flender rev. 3</p>
220	198 ÷ 242	245	-12	
320	288 ÷ 352	250	-12	
460	414 ÷ 506	250	-12	
VECO Matranol EP				<p>This high quality, mineral oil is intended for the lubrication of highly loaded, industrial gears with various meshing types that operate at temperatures below 120°C. Eight viscosity grades allow to choose a precise selection according to the operating conditions and the type of gear.</p> <p>Meets following specifications: DIN 51517 part 3, US Steel 224, AGMA 250.04 EP, David Brown S1.53.101E, PN-80/C-96056, ISO 3448, ZN-PTX-OP-11016.</p>
68	61,2 ÷ 74,8	230	-30	
100	90 ÷ 110	240	-27	
150	135 ÷ 165	245	-24	
220	198 ÷ 242	245	-21	
320	288 ÷ 352	250	-18	
460	414 ÷ 506	250	-15	
680	612 ÷ 748	260	-12	
1000	900 ÷ 1100	260	-9	

VECO HYDRAULIC AND GEAR OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Matranol				<p>This high quality, mineral oil is intended for the lubrication of moderately loaded, industrial gears with various meshing types that operate at temperatures below 100°C. Eight viscosity grades allow to choose a precise selection according to the operating conditions and the type of gear.</p> <p>Meets following specifications: US Steel 220, DIN 51517 part 2, PN-73/C-96076, PN-80/C-96056, ISO 3448, ZN-PTX-OP-11015.</p>
68	61,2 ÷ 74,8	245	-30	
100	90 ÷ 110	245	-27	
150	135 ÷ 165	245	-24	
220	198 ÷ 242	245	-21	
320	288 ÷ 352	245	-18	
460	414 ÷ 506	250	-15	
680	612 ÷ 748	260	-12	
1000	900 ÷ 1100	260	-9	

VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application		
MACHINE OILS						
VECO Megol 10 15 22 32 46 68 100	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110	160 185 205 215 235 245 260	-21 -18 -15 -15 -15 -12 -9	This high quality, mineral oil is intended for the lubrication of gears, bearings and guides in various types of industrial machinery and equipment with light loads and a temperature no higher than 50°C. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specifications: PN-85/C-96070, DIN 51501, ISO 3448, ZN-PTX-OM-04001.		
VECO Megol Z 10 15 22 32 46 68 100	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110	160 185 205 215 235 245 260	-39 -36 -36 -33 -30 -27 -24			
VECO Megol WR 5 7 10	4,0 ÷ 5,5 6,0 ÷ 8,0 9,0 ÷ 12,0	145 150 155	-48 -45 -42		This high quality, mineral oil is intended for the lubrication of high speed elements of textile machinery and precise machine tools. This oil may be used for the lubrication of machinery operating at low temperatures. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specifications: ZN-PTX-OM-04301, BN-72/0535-31, DIN 51524 part 1, ISO 3438.	
SPECIAL MACHINE OILS						
VEXOL Special	9,8 (w 100 °C)	230	-12			This oil is intended for the use in the lubricating systems of the guides and cutting chains of chain saws with combustion and electrical engines. Meets following specification: ZN-PTX-OM-04002.

VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VEXOL Plus 100	90 ± 110	230	-18	This high quality, mineral oil is intended for the lubrication of driving and conveyor chains. This oil has excellent adhesion properties, shows high ability to penetrate between elements of the chain links and has no tendency to splash at high chain speeds. It may also be used in chains saws with combustion and electrical engines for the lubrication of the guides and cutting chains. Meets following specification: ZN-PTX-OM-04003.
VECO Megol K 32 68 150 220	28,8 ± 35,2 61,2 ± 74,8 135 ± 165 198 ± 242	220 230 250 260	-36 -30 -24 -21	This high quality, mineral oil is intended for the lubrication of machine tool shears, saddles and tables. It shows good, long-term adhesion to metal surfaces. The oil's viscosity grades 150 and 220 are recommended for the lubrication of oblique and upright shears. Meets following specifications: ZN-PTX-OM-04014, ISO 3448.
VECO Megol SL 32 68 150 220	28,8 ± 35,2 61,2 ± 74,8 135 ± 165 288 ± 352	220 230 250 260	-36 -30 -24 -21	This high quality, mineral oil is intended for the lubrication of machine tool shears, saddles and tables. Due to the use of friction modifiers in its manufacturing process, this oil shows good adhesion to metal surfaces. This product prevents stick-slip motions what allows for the precise machining of elements with high surface quality. Its viscosity grades 150 and 220 are recommended for the lubrication of oblique and upright shears. Meets following specifications: ZN-PTX-OM-04004, ISO 3448.
VECO Megol RO 32 46 68 100 150 220 320 460	28,8 ± 35,2 41,4 ± 50,6 61,2 ± 74,8 90 ± 110 135 ± 165 198 ± 242 288 ± 352 414 ± 506	210 210 230 240 250 260 280 280	-18 -15 -12 -12 -9 -9 -9 -6	This high quality, mineral oil is intended for the circulating lubrication of industrial machinery and equipment. It has good anti-corrosion properties and shows high durability and resistance to both foaming and emulsifying with water. This oil may also be used in hydraulic systems and industrial gears with moderate loads and a temperature no higher than 70°C. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specifications: DIN 51524 part 1, DIN 51517 part 1 and 2, ZN-MDX-OM-04007.
VECO Megol Z-25 ELT	41,4 ± 50,6	≥ 160	-	This oil is intended for the lubrication of precise mechanisms and horological devices operating at a temperature from -50 to 100°C. This oil has specific features required for these applications – little viscosity changes with altering temperatures and good compatibility with non-ferrous metals, lacquers, plastics and elastomers. It maintains itself at the place where it has been brought on, which is essential in the case of mechanisms without seals. Meets following specification: ZN-MDX-OM-04310.



VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Megol LM 100 150 220 320 460 680	90 ÷ 110 135 ÷ 165 198 ÷ 242 288 ÷ 352 414 ÷ 506 612 ÷ 748	255 255 260 265 280 280	-15 -12 -12 -9 -9 -9	<p>The high quality, mineral oil is intended for the lubrication of fluid friction bearings, the so-called Morgoil's bearings, in rolling mills for the cool rolling of metal plates applied in the metallurgy. It may also be used as an enriched machine oil in the paper and machinery manufacturing. Its viscosity grade should be selected according to the operating conditions and the type of equipment.</p> <p>Meets following specifications: DIN 51524 part 2, Morgoil MLS Draft rev. 4, ISO 3448.</p>
VECO Megol MN MN-11 MN-15	80 (w 50°C) 110 (w 50°C)	220 280	-9 -9	<p>This high quality, greasy, machine oil is intended for the use in bearings of steam driven machinery and bearings exposed to contact with water. It forms a stable emulsion with water while maintaining its lubricating properties. VECO Megol MN 11 is recommended for the lubrication of outer parts of steam driven machinery while VECO Megol MN 15 is suited for the lubrication of bearings of vessel screw propellers.</p> <p>Meets following specifications: PN-C-96074, ZN-PTX-94/OM-04201.</p>
VECO L-50/50 U-30/50	52 ÷ 74 39 ÷ 51,5	260 240	-12 -27	<p>This mineral oil is intended for the lubrication of plain bearings of steam locomotives, railway wagons and tram-cars.</p> <p>Meets following specifications: PN-C-96097, ZN-PTX-OM-02001.</p>
CYLINDER OILS				
VECO CIT 280 310 320	28 (w 100 °C) 32 (w 100 °C) 48 (w 100 °C)	310 320 330	-9 -9 -9	<p>This refined, mineral oil is intended for the lubrication of machinery driven with inlet steam overheated with a temperature of up to 320°C. This oil is recommended for the lubrication of the cylinders, steam distribution components and glands of steam engines. Its viscosity grade should be selected according to the operating conditions and the type of equipment.</p> <p>Meets following specifications: PN-61/C-96095, DIN 51510, ZN-PTX-OR 16001.</p>
VECO CIT 460 N	460	310	-9	<p>This oil is intended for the lubrication of the cylinders of single- and multistage piston compressors, vacuum pumps and steam engines operating at high temperatures and high pressure, where the use of the oil with improved lubricating properties is necessary. This oil may be used for the lubrication of the cylinders, steam distribution components and glands of steam driven machinery.</p> <p>Meets following specification: ZN-PTX-OR-16021.</p>

VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 100 °C, [mm ² /s]	Flash point, [°C]	Residue after ashing, [°C]	Application
HEATING OILS				
VECO TERMOL 5 HT 6 Mb 5	5,0 ÷ 6,0 5,5 ÷ 6,5 4,5 ÷ 5,5	220 230 220	0,03 0,002 0,001	<p>This high quality, mineral oil is intended for the use as a circulating agent in heating systems. This oil may operate at a temperature up to 200°C in open systems and up to 300°C in systems without air access. It is available in three types:</p> <p>5HT – operating temperature up to 300°C, washing and dispersing properties. 6MB – operating temperature up to 280°C, washing and dispersing properties, very little remains after coking and incineration. 5 – operating temperature up to 250°C, very little remains after coking and incineration. Meets following specification: ZN-PTX-OR-05001.</p>

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
SPECIAL OILS				
Vecopap Syntex MP	220	230	-39	<p>The highest quality, synthetic oil is intended for the use in the central lubrication system of paper machinery. Its properties exceed the ones of the mineral oils used for this purpose. Meets following specification: DIN 515 17 part 2, US Steel 220.</p>
Vecopap MP	198 ÷ 220	240	-9	<p>This high quality, mineral oil is intended for the use in the central lubrication system of paper machinery. It is resistant to oxidation and thermal degradation. The oil maintains a stable viscosity in operation, protects very effectively against corrosion, does not form acid sediments and does not mix with water. Meets following specifications: DIN 515 17 part 2, US Steel 220.</p>
VECO Pneumatic Premium 15 20	14,5 20	200 210	-24 -21	<p>This high quality, mineral oil is intended for the oil mist lubrication of precise elements of machinery and precise devices as well as movable elements of pneumatic installations in industrial machinery and equipment. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specification: ZN-MDX-OM-04502.</p>



VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Pneumatic 32 46 100	28,8 ÷ 35,2 41,4 ÷ 50,6 90 ÷ 110	205 210 245	-30 -27 -24	This high quality, mineral oil is intended for the oil mist lubrication of rotary and percussive pneumatic tools operating under high loads. It is also recommended for the use in pulverizing lubricators installed in pneumatic systems of industrial machinery and equipment. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specification: ZN-MDX-OM-04501.
VECO Hydralin 32	28,8 ÷ 35,2	200	-30	This special, mineral oil is intended for the use in hydrodynamic couplings (Voith) and power transmission systems in the energy industry. This oil may also be used in friction clutches operating in an oil bath. Meets following specifications: Allison C-3, ZN-PTX-OP-13027.
VEXOL Syntex IB-30 IB-30 PS IB-30 MOS	220 210 240	270 270 270	-42 -42 -39	This oil is intended for the lubrication of driving and conveyor chains, guides and plain bearings. It is recommended for the use in equipment operating at high temperatures. This oil shows high stability, guarantees effective anti-corrosion protection and it is suited to be applied at temperatures from -35 to 260°C. It is available in three types: IB-30 – decomposes at high temperatures, does not leave behind sediments on metal surfaces. IB-30 PS – colourless, destined for equipment in the food industry. IB-30 MOS – with a molybdenum disulfide additive. Meets following specification: ZN-MDX-OP-11020.
VEXOL Plus 680 L LK	30 (w 100 °C) 30 (w 100 °C)	240 240	- -	This plastic oil is intended for lubrication and rust prevention. It contains adhesion increasing, friction reducing and anti-corrosion additives. It can be applied manually and mechanically after dilution with extraction naphtha. It is available in two types: Vexol Plus 680 L – destined for the lubrication of open gears and wire ropes. Vexol Plus 680 LK – destined for the rust prevention of steel wire ropes. Meets following specification: ZN-PTX-OP-11017.
VEXTIL 22 32 46	19,8 ÷ 24,2 28,8 ÷ 35,2 41,4 ÷ 50,6	200 210 220	-18 -15 -12	This high quality, mineral oil is intended for the use in textile machinery. It does not dirty the yarn and is very easily washed out. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specification: ZN-PTX-OM-04401.

VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
COMPRESSOR OILS				
VECO Syntaurus P 32 46 68 100	5,8 (w 100 °C) 7,1 (w 100 °C) 10,2 (w 100 °C) 13,4 (w 100 °C)	220 245 245 245	≤ - 40 ≤ - 40 ≤ - 40 ≤ - 40	The newest, synthetic, compressor oil is intended for the use in rotary and piston air compressors operating in the hardest conditions. This oil meets the specifications of the newest norms and the sharpest requirements of the manufacturers. Its viscosity grade should be selected according to the operating conditions and the type of equipment. Meets following specifications: DIN 51506: VCL and VDL, PN-91/C-96073, ISO 652. 1: L-DAA, L-DAB, L-DAC, L-DAH, L-DAG, L-DAJ.
VECO Taurus HD 46 68 100 150	41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	210 215 220 225	-9 -9 -9 -9	This high quality, mineral air compressor oil is intended for the use in single- and multistage piston compressors and in rotary blade compressors lubricated by dropping. This oil is recommended to be used in average and hard operating conditions. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: ISO L-DAB, L-DAC, DIN 51506 VDL, PN-91/C-96073.
VECO Taurus LD 46 68 100 150	41,4 ÷ 50,6 61,2 ÷ 74,8 90 ÷ 110 135 ÷ 165	210 215 220 225	-9 -9 -9 -9	This high quality, mineral air compressor oil is intended for the use in single- and multistage piston compressors and in rotary blade compressors lubricated by dropping. This oil is recommended to be used in average operating conditions. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: ISO L-DAB, DIN 51506 VDL, PN-91/C-96073.
VECO Taurus 46 100 150	41,4 ÷ 50,6 90 ÷ 110 135 ÷ 165	210 220 225	-9 -9 -9	This high quality, mineral air compressor oil is intended for the use in single- and multistage piston compressors and in rotary blade compressors lubricated by dropping. This oil is recommended to be used in moderate operating conditions. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: ISO L-DAA, DIN 51506 VB, VC, PN-91/C-96073.
VECO Taurus TZ TZ-13 TZ-19 TZ-28 WZ	14 (w 50 °C) 21 (w 50 °C) 29 (w 50 °C) 29 (w 20 °C)	170 180 200 150	-51 -45 -39 -51	This oil is intended for the lubrication of ammonia refrigerating compressors. This oil may operate at various temperatures and can be diluted with the coolant. Meets following specification: PN-74/C-96072.

VECO INDUSTRIAL OILS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Rotaurus Premium HD 32 46 68	28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8	200 200 210	-33 -30 -27	The highest quality, mineral oil is intended for the use in rotary screw and rotary blade air compressors. It shows high durability and superb lubricating properties. Its corrosion inhibitors protect sensitive parts against all types of corrosion. Due to the oil's washing and dispersing properties, the operating compressor elements remain clean. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications : ISO DP 6521 L-DAG/L-DAH; DIN 51506 VDL.
VECO Rotaurus HD 32 46 68	28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8	200 200 210	-9 -9 -9	This high quality, mineral oil is intended for the use in rotary screw and rotary blade air compressors. Due to its good lubricating and washing-dispersing properties, the compressor's cylinders, pistons, rotary blades and gears are effectively protected against wearing. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: ISO DP 6521-2 L-DAG/L-DAH; DIN 51506 VDL.
VECO Rotaurus 32 46 68	28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8	200 200 210	-9 -9 -9	This high quality, mineral oil is intended for the use in rotary screw air compressors with oil injection and turbo-compressors operating in mild conditions. This oil is resistant to oxidation and has good lubricating and anti-corrosion properties. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: ISO DP 6521-2 L-DAG, DIN 51506 VCL, VDL.
TURBINE OILS				
VECO Turbinol TU 32 46 68	28,8 ÷ 35,2 41,4 ÷ 50,6 61,2 ÷ 74,8	200 200 210	-12 -9 -9	This high quality, mineral oil is intended for the lubrication of bearings, toothed gears, shaft seals, couplings and hydraulic regulation systems in steam driven turbines. This oil may also be used for the lubrication of gas and water turbines or in hydraulic systems and air compressors for which the manufacturers recommend the application of enriched turbine oils. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specifications: DIN 51515, Brown Boveri HT GD 90 117E, US Steel 120, General Electric GEK-46506 B, DIN 51524 part 1, Hägglund Denison HF-1, Cincinnati Milacron P-38, P-54, P-55 and P-57, PN-84/C-96059.
VECO Turbinol T T-20 T-30	20 ÷ 25 (w50°C) 30 ÷ 35 (w50°C)	210 210	-9 -9	This mineral oil is intended for the lubrication of bearings, toothed gears, shaft seals, couplings and hydraulic regulation systems in steam driven turbines. This oil may also be used for the lubrication of water turbines. Its viscosity grade should be selected according to the manufacturer's recommendations, the operating conditions and the type of equipment. Meets following specification: ZN-PTX-OT-09101.

VECO METALWORKING PRODUCTS

Product	pH of emulsion with 15 °d water, typical values	Emulsion type	Concentrate's kinematic viscosity at 40 °C, [mm ² /s], typical values	Application
MINERAL EMULSIFYING OILS FOR METALWORKING				
VECO Emulex E-42	8,7	milky	35	This emulsifying oil for the formation of an emulsion is intended for the machining and grinding of steel, cast iron and non-ferrous metals. The emulsion shows increased resistance to bacterial infection. Meets following specification: ZN-PTX-OO-08301.
VECO Emulex ES-12	8,0	milky	42	This emulsifying oil for the formation of an emulsion is intended for the machining and grinding of steel, cast iron and non-ferrous metals. The emulsion is stable, shows good lubricating and cooling properties and protects the machined elements and machinery against all types of corrosion. Meets following specification: ZN-PTX-OO-08101.
VECO Emulex L	8,5	milky	43	This emulsifying oil for the formation of an emulsion is intended for the cooling of metal elements in laser cutting. The emulsion guarantees the significant reduction in the number of sediments formed during cooling and the aesthetic appearance of the cut elements. Meets following specification: ZN-PTX-OO-08103.
VECO Emulex ES-Cu	8,5	milky	38	This emulsifying oil for the formation of an emulsion is intended for the machining of non-ferrous metals. The emulsion shows high stability and protects the machined elements and machinery against all types of corrosion. It contains an effective set of non-ferrous metals corrosion inhibitors. Meets following specification: ZN-PTX-OO-08101.

VECO METALWORKING PRODUCTS

Product	pH of emulsion with 15 °d water, typical values	Emulsion type	Concentrate's kinematic viscosity at 40 °C, [mm ² /s], typical values	Application
SYNTHETIC EMULSIFYING OILS FOR METALWORKING				
VECO Emulex Synti SZ SZ/T	9,0 8,8	solution solution	6 6	<p>This synthetic, emulsifying oil, for the formation of an emulsion, is intended for the machining and grinding of metals. It forms a stable and clear solution with water having a hardness of up to 20°d. It guarantees satisfying, anti-corrosion protection already at a concentration of 2 %.</p> <p>VECO Emulex Synti SZ is recommended for machining and grinding of cast iron and steel.</p> <p>VECO Emulex Synti SZ/T is recommended for the machining of non-ferrous metals and may be used as a hydraulic fluid concentrate to be diluted with water.</p> <p>Meets following specification: ZN-PTX-00-08603.</p>
VECO Emulex Synti LC	9,0	solution	40	<p>This synthetic, emulsifying oil, for the formation of an emulsion, is intended for the machining and grinding of cast iron, steel and non-ferrous metals. It forms a stable and clear solution with water having a hardness of up to 30 °d. This product guarantees good, anti-corrosion protection at a concentration higher than 4 %. Its increased resistance to bacterial infection allows for the significant extension of the emulsion's life cycle. It is mainly destined for light and moderate machining.</p> <p>Meets following specification: ZN-MDX-03/00-08607.</p>
SEMI-SYNTHETIC EMULSIFYING OILS FOR METALWORKING				
VECO Emulex Synti HD	9.2	transparent	64	<p>This semi-synthetic, emulsifying oil for the formation of an emulsion is intended for the machining and plastic working of cast iron, steel and non-ferrous metals. It forms a stable micro-emulsion with water having a hardness of up to 20°d. This product guarantees satisfying anti-corrosion protection already at a concentration of 2 %. The emulsion shows increased resistance to bacterial infection and therefore a long life cycle. The product is mainly destined for light and moderate machining. At a concentration of more than 10 % it may be applied for heavy machining. It is recommended for the use in modern machining centres.</p> <p>Meets following specification: ZN-MDX-00-09501.</p>

VECO METALWORKING PRODUCTS

Product	pH of emulsion with 15 °d water, typical values	Emulsion type	Concentrate's kinematic viscosity at 40 °C, [mm ² /s], typical values	Application
VECO Emulex Synti XHD	9,2	transparent	94	This semi-synthetic, emulsifying oil for the formation of an emulsion is intended for the machining and plastic working of cast iron, steel and non-ferrous metals. It forms a stable micro-emulsion with water having a hardness of up to 20°d. This product guarantees satisfying anti-corrosion protection already at a concentration of 2 %. The emulsion shows increased resistance to bacterial infection and therefore a long life cycle. It is recommended for the use in modern machining centres. Due to its splendid lubricating properties, this product gives good results in heavy machining. Meets following specification: ZN-MDX-OO-09502.
VECO Emulex Synti EP	8,9	semi-transparent	75	This semi-synthetic, emulsifying oil for the formation of an emulsion is intended for the machining and plastic working of cast iron, steel and non-ferrous metals. It forms a stable micro-emulsion with water having a hardness of up to 20°d. This product guarantees satisfying anti-corrosion protection at a concentration higher than 3 %. The emulsion shows increased resistance to bacterial infection and therefore a long life cycle. Due to its splendid lubricating properties, this product gives good results in heavy machining. Meets following specification: ZN-PTX-OO-08605.
VECO Emulex Synti HM-1 HM-2	9,4 9,3	transparent transparent	98 102	This semi-synthetic, micro-emulsive, bio-stable, metalworking fluid concentrate for the formation of a water emulsion is intended for the machining and plastic working of cast iron, steel and aluminium alloys. It forms a stable micro-emulsion with water having a hardness of up to 40°d. It is recommended to be used at a concentration higher than 4 %. VECO Emulex Synti HM-1 is destined for light and moderate machining. VECO Emulex Synti HM-2 is destined for moderate and heavy machining and the machining of non-ferrous metals. Emulsions on the base of the concentrate VECO Emulex Synti HM may be used both in modern machining centres and in older equipment. Meets following specification: ZN-MDX-OO-09601.
VECO Emulex Synti RHS	9,3	transparent	80	This semi-synthetic, emulsifying oil, for the formation of an emulsion, is intended for the machining, plastic working and grinding of cast iron, steel and non-ferrous metals. It forms a stable micro-emulsion with water having a hardness of up to 20°d. This product guarantees satisfying, anti-corrosion protection already at a concentration of 2 %. The emulsion shows increased resistance to bacterial infection and therefore a long life cycle. Due to its splendid lubricating properties, this product gives good results in heavy machining. It guarantees low wearing of tools. Meets following specification: ZN-PTX-OO-08601.
VECO Emulex Synti Al	9,0	transparent	78	This semi-synthetic, emulsifying oil, for the formation of an emulsion, is intended for the machining, plastic working and grinding of non-ferrous metals. It forms a stable micro-emulsion with water having a hardness of up to 20°d. This product guarantees satisfying anti-corrosion protection already at a concentration of 2 %. The emulsion shows increased resistance to bacterial infection and therefore a long life cycle. It gives good results in the machining of aluminium, copper and copper alloys. It guarantees the ideal surface finish of the machined elements. Meets following specification: ZN-PTX-OO-08602.



VECO METALWORKING PRODUCTS

Product	Concentrate's kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Weld point, [daN]	Application
NON-EMULSIFYING OILS FOR METALWORKING				
VECO Honol Honol Honol Plus	7,0 (w 20 °C) 5,0	80 100	- 785	This oil is intended for the use in the honing of steel, cast iron and non-ferrous metals. It is manufactured in two viscosity grades. VECO Honol Plus has an increased flash point and improved lubricating properties. Meets following specification: ZN-PTX-OO-08801.
VECO Ferol SZ-AR	6,0	130	-	This oil is intended for the use in the machining, grinding and lapping of steel, cast iron and non-ferrous metals. This oil may be used as a rust preventive. This product guarantees the effective anti-corrosion protection of the machined surfaces even when emulsions were used in the previous metalworking stages. Meets following specification: ZN-MDX-00/OO-08403.
VECO Ferol EL	6,0	110	-	This oil is intended for the use as a dielectric fluid for electrolytic machining, roughing and finishing in all types of spark erosion machinery. Meets following specification: ZN-PTX-OO-08404.
VECO Ferol EP 10 15 22	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2	150 160 180	630 630 630	This oil is intended for the machining of steel which is difficult to cut and the machining of cast iron and steel which is easier to cut but where the metalworking conditions are hard (e.g. for threading, deep drilling). It is manufactured in a few viscosity grades. Meets following specification: ZN-PTX-OO-08402.
VECO Ferol MST 10 15 22 32	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2 28,8 ÷ 35,2	150 160 180 190	785 785 785 785	This oil is intended for the machining of steel which is difficult to cut and the machining of cast iron and steel which is easier to cut but where the metalworking conditions are hard (e.g. for threading, deep drilling). This oil does not contain zinc and chlorine additives. It may also be used for some plastic working processes – e.g. stamping and die shearing. It is manufactured in a few viscosity grades. Meets following specification: ZN-PTX-OO-08405.

VECO METALWORKING PRODUCTS

Product	Concentrate's kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Weld point, [daN]	Application
VECO Ferol M M-19 M-20 M-21 M-22 M-24	7,3 10,7 14,4 22,7 43,5	125 165 187 208 225	- - - - -	This oil is intended for the machining of steel, cast iron and non-ferrous metals. This oil can easily be removed from surfaces with the aid of petroleum solvents. This feature facilitates the following stages of the metalworking process (e.g. the coating, painting, soldering etc.) and improves the aesthetics of the end products. The oil contains additives of vegetable origin. It is manufactured in a few viscosity grades. Meets following specification: ZN-MDX-01/00-08410.
VECO Vespan ACP ACP-1 ACP-3	10 ÷ 17 19 ÷ 27	150 170	400 400	This oil is intended for the machining of iron alloys and light and non-ferrous metals. It is manufactured in two versions. VECO Vespan ACP-1 is used for the grinding, turning and milling of steel, cast iron and copper alloys and for the screw cutting in steel, cast iron and aluminium alloys. VECO Vespan ACP-3 is suited for the deep drilling in steel, cast iron and copper and aluminium alloys. Meets following specification: ZN-PTX-00-08501.
VECO Ferol 10 15 22	9,0 ÷ 11,0 13,5 ÷ 16,5 19,8 ÷ 24,2	150 160 180	- - -	This oil is intended for the machining of steel, cast iron and non-ferrous metals. It contains enriching additives of fatty origin improving the oil's lubricating and anti-wear properties as well as components preventing the formation of an oil mist. This oil is manufactured in a few viscosity grades. Meets following specification: ZN-PTX-00-08401.
VECO Vespan SM NP	16,5 ÷ 24,2 16,5 ÷ 24,2	180 170	- -	This oil is intended for the machining of steel, cast iron and non-ferrous metals. It is recommended for the use in light metalworking processes with low cutting speeds. Meets following specification: ZN-PTX-00-08201.

VECO METALWORKING PRODUCTS

Product	Concentrate's kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
HEAT TREATMENT PRODUCTS				
VECO Hartol	24 + 30	175	-12	This oil is intended for the heat treatment of carbon or alloy steel construction elements in processes where the requirements relating to the cleanness of surfaces and geometric deformation are not essential to the quenched objects. Meets following specification: ZN-PTX-OR-06001.
VECO Hartol OH 70 120 160	14,5 + 18,5 24,0 + 28,5 110 + 120 (w 50 °C)	170 200 250	-18 -15 -12	This oil is intended for the heat treatment of cast iron or steel construction elements where small geometric deformations during the treatment are allowed while a suitable cooling speed is maintained. This oil is manufactured in a few viscosity grades. Meets following specifications: ZN-PTX-OR-06101, BN-75/0535-04.
VECO Hartol Maxterm 10	11	130	-18	This oil is intended for the heat treatment of cast iron and hard-to-quench steel construction elements in a metalworking process where high quenching speeds are required and only small geometric deformations allowed. Meets following specification: ZN – MDX-OR-06103.
VECO Hartol Turbo OSH	24,5	210	-15	This oil with high cooling speed is intended for the heat treatment of cast iron and hard-to-quench steel construction elements in a metalworking process where high quenching speeds are required and only small geometric deformations allowed. Meets following specification: ZN – MDX-OR-06102.

VECO METALWORKING PRODUCTS

Product	Concentrate's kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
PRODUCTS FOR PLASTIC METALWORKING				
VECO Press	220	200	-9	This oil is intended for the lubrication of metal plates, blanking dies and die blocks in the processes of deep drawing and die shearing of steel. Meets following specification: ZN-PTX-OO-08901.
VECO Press MLT MLT 2 MLT 4	2,0 4,0	70 80	- -	This oil is intended for the plastic working of elements made of steel and non-ferrous metals. It is mainly used for the drawing of metal plates, bending of pipes, blanking of shapes from metal plates and pull broaching and drawing of wires. This low viscosity oil has good lubricating properties and evaporates quickly. It is manufactured in two viscosity grades. Meets following specification: ZN-PTX-OO-08460.
VECO Press MS 75	70	180	-	This oil is intended for the deep drawing of steel. It contains additives of vegetable origin. This oil guarantees increased durability of tools and allows for high quality surface finish of products. Meets following specification: ZN-PTX-OO-08461.
VECO Press E	48,0	230	-9	This synthetic, biodegradable oil is intended for the drawing of metal plates. It can be easily washed away in usual, defatting baths. This oil is totally biodegradable and environmentally friendly. Meets following specification: ZN-PTX-OO-08903.
VECO Press AR	220	190	-9	This oil is intended for the drawing of steel plates. It is resistant to the working of water and guarantees long-term, anti-corrosion protection of the machined surfaces. Meets following specification: ZN-PTX-OO-08902.

VECO METALWORKING PRODUCTS

Product	Concentrate's kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECO Press SL	10,0	120	-15	This semi-synthetic oil is intended for the drawing and die shearing of plates of steel and non-ferrous metals. Due to its low viscosity, this oil is easily brought on by spraying. Meets following specification: ZN-PTX-OO-08904.
VECO Emulex W ES-W WT	72 46	180 160	- -	This oil is intended for the formation of emulsions used for the plastic working (rolling, drawing,) and machining of cast iron, steel and non-ferrous metals. An emulsion made on the base of Veco Emulex W shows particularly high operating properties, increased stability and improved oxidation and corrosion resistance. During the soaking of the end products, the emulsion evaporates totally without staining. This oil is recommended for the rolling and pickling of metal plates. Meets following specification: ZN-PTX-OO-08102.
VECO Ferol P-5	5,0	100	-12	This oil has high cooling effectiveness and superb lubricating properties. It is intended for wire drawing and threading of steel which is difficult to cut. This oil may be used for the grinding and machining of steel and cast iron. Meets following specification: ZN-PTX-OO-08403.
VECOTIN W-10 C-10	8,0 8,0	120 120	- -	This oil is intended for the rolling of plates of steel and non-ferrous metals. It guarantees the cooling and lubrication of the machined elements and ensures that their surfaces remain in good condition. Vecotin W-10 contains lubricity improving additives and it is recommended for the rolling of steel plates. Vecotin C-10 contains additionally a set of copper corrosion inhibitors and is mainly destined for the rolling of plates of non-ferrous metals. Meets following specification: ZN-PTX-OO-08452.

VECO METALWORKING PRODUCTS

Product	pH of emulsion	Mass density, [g/cm ³]	Appearance	Zastosowanie
AUXILIARY AND MAINTENANCE PRODUCTS				
VECO Mikrobiocyd D-2	11,0 (2 %)	1,07	clear fluid	This rust preventive additive, with bactericidal and fungicidal working, is intended for the removal of microorganisms from emulsions made with mineral emulsifying oils. The use of this product significantly extends the life cycle of the emulsion. It is also recommended to add VECO Mikrobiocyd D-2 in a concentration of 0,2% to freshly made emulsions if these do not contain biocidal additives. Meets following specification: ZN-PTX-OO-08702.
VECO Mikrobiocyd K-1	-	-	clear fluid	It is a highly effective product with bactericidal and fungicidal working. It effectively destroys the majority of bacterial strains, yeast, moulds and algae. This product is destined for the removal of microorganisms from water solutions and emulsions, metalworking liquids and industrial operation fluids. The recommended concentration of VECO Mikrobiocyd K-1 is 0,05 ÷ 0,15%, depending on the fluid's contamination grade.
Veconol Cu	-	1,2	clear fluid which may crystallize	This copper passivator is intended to be used as an additive to metalworking, fluid emulsions in order to protect copper alloys against corrosion. This product can best be added by dosing or in a thin stream during the emulsion's circulation in front of the pump. It may also be added to solutions of washing and defatting detergent fluids, to water-glycol, heat-carrying agents and to water circulating in heat exchange systems. Meets following specification: ZN-PTX-SK-01103.
VECO Cleaner KD-1	11,5 (1 %)	1,08	clear fluid	This disinfecting and cleaning concentrate is intended for the disinfection of circulation systems of emulsifying, metalworking fluids. It is usually added to the emulsion before its exchange in a concentration of 1 ÷ 3 %. Meets following specification: ZN-PTX-OO-08701.
Ph-booster	-	1,14	clear fluid	This highly effective product is intended to raise the pH rate of water solutions and emulsions of metalworking liquids and industrial operation fluids.

VECO RUST PREVENTIVES

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
LIGHT RUST PREVENTIVES				
VECONOL Kalibrol	4,0	70	-	This washing rust preventive is intended for the monitoring, regulation, washing and rust prevention of injection pumps and injectors of diesel engines. It is also recommended for the temporary anti-corrosion protection of metal parts of fuel apparatus during storage. Meets following specification: ZN-PTX-SK-04000.
VECONOL 13 N-13	19,0 19,0	170 170	-27 -45	This rust preventive is intended for the temporary anti-corrosion protection and lubrication of precise mechanisms, tools and other metal elements. Veconol N-13 is recommended for the rust prevention and lubrication of equipment and mechanisms operating at very low temperatures. Meets following specification: ZN-PTX-SK-03011.
RUST PREVENTIVE LUBRICANTS				
VECONOL Complex 60 120 250	100 200 410	230 240 250	-18 -15 -9	This rust preventive is intended for the temporary anti-corrosion protection of outer metal surfaces of machinery and equipment, gears, hydraulic systems and precise instruments as well as for the impregnation of self-lubricating sintered sleeves and the lubrication of some types of plain bearings. This oil guarantees the long-term protection of metal surfaces against all types of corrosion. The washing of the treated elements before their assembling or operation is not necessary. Its viscosity grade should be selected according to the rust prevention or lubrication requirements. Meets following specification: ZN-PTX-SK-03010.

VECO RUST PREVENTIVES

Product	Penetration at 25 °C, [1/10 mm]	Flash point, [°C]	Dropping point, [°C]	Application
PROTECTIVE GREASES				
VECONOL LR LR Plus B LR Plus 50	150 65 120	240 240 240	60 65 80	<p>This rust preventive grease is intended for preservation of steel, wire ropes during their manufacturing. It prevents the slipping of the wire rope and is resistant to water washing.</p> <p>It may also be used for the lubrication of chains and long-term, rust prevention of various products made of cast iron or steel and for the impregnation of cords, washers, separators and gaskets.</p> <p>Veconol LR – recommended for the rust prevention of wire ropes operating at a temperature from –20 to 45°C. It has a light colour and guarantees the wire rope's aesthetic appearance.</p> <p>Veconol LR-Plus B – recommended for the rust prevention of wire ropes operating at a temperature from –40 to 50°C. Its colour is nearly white. Guarantees the wire rope's aesthetic appearance.</p> <p>Veconol LR-Plus 50 – recommended for the rust prevention of wire ropes operating at a temperature from –40 to 60°C.</p> <p>Meets following specification: ZN-PTX-SK-03060.</p>
Veconol WT	150	250	70	<p>This petroleum jelly grease is intended for the lubrication, rust prevention and sealing of various equipment operating at a temperature to 45°C. It is very stable and chemically resistant. This grease is also applied for the impregnation of gaskets, cardboard washers and cords used for the sealing of screw threads.</p> <p>Meets following specification: ZN-PTX-SK-03051.</p>
VECONOL FP	150	-	68	<p>This petroleum jelly grease is intended for the lubrication, rust prevention and sealing of various equipment operating at a temperature from -45 to +45°C. It is very stable, chemically resistant, smell free and does not cause threats to human health. This grease is also applied for the impregnation of gaskets, cardboard washers and cords used for the sealing of screw threads. It is resistant to the working of acids and bases.</p> <p>Meets following specification: ZN-PTX-SK-03050.</p>
Veconol PK	-	240	-	<p>This anti-corrosive, rifle grease is intended for the short-term, rust prevention of small arms.</p> <p>Meets following specification: ZN-MDX-TY-00501.</p>

VECO RUST PREVENTIVES

Product	Kinematic viscosity at 40 °C, [mm ² /s]	pH	Type of protective coating	Application
EMULSIVE RUST PREVENTIVES				
VECONOL LH	-	9,3	oily	This rust preventive, water-oil emulsion is applied in a concentration of 3÷20 %. It is intended for the rinsing of elements after metalworking with the use of cooling agents on the base of water. This product guarantees very effective anti-corrosion protection during storage between operations. The coating remaining after the evaporation of water can easily be removed with the aid of both water solutions and petroleum solvents. Meets following specification: ZN-MDX-SK-01321.

Product	Kinematic viscosity at 20 °C, [mm ² /s]	Flash point, [°C]	Type of protective coating	Application
SOLVENT RUST PREVENTIVES				
VECOROL N-10	3,0 (w 40 °C)	65	oily	This dehydrating rust preventive is intended for the rust prevention of mechanisms, tools and other metal elements operating in a humid environment as well as for the removal of water from the surface of metal products previously submitted to machining processes with water or emulsion cooling. Meets following specification: ZN-PTX-SK-01001.
VECO Penetrant MDX-40	3,0	68	oily	This washing rust preventive is intended for the rust prevention, cleaning and lubrication of movable joints. Due to its penetrating properties, it helps to disconnect seized joints and to lubricate parts which are not easily accessible. This product is recommended for the lubrication and rust prevention of vehicle parts, sewing machines, tools, locks, hinges and other similar elements. Meets following specification: ZN-PTX-SK-01201.
VECOROL MDX 15A MDX 20A	2,0 3,0	40 40	waxy brown waxy brown	This anti-corrosive, temporary protection product is intended for the rust prevention of metal surfaces of mechanisms and tools. It has dehydrating properties and contains a petroleum solvent which leaves a protective layer on the metal surface. This product forms a waxy and impermeable layer which protects stored elements. It is recommended for rust prevention during sea transport. Meets following specification: ZN-PTX-SK-02000.

VECO RUST PREVENTIVES

Product	Kinematic viscosity at 20 °C, [mm ² /s]	Flash point, [°C]	Type of protective coating	Application
Vecorol MDX 150T	75	55	waxy brown	This anti-corrosive product is intended for the long-term rust prevention of metal surfaces of mechanisms and tools stored in unfavourable conditions. It has penetrating properties and leaves a durable, water resistant and elastic coating. Meets following specification: ZN-MDX-SK-02002.
Vecorol MDX 30H	200	58	waxy black	This anti-corrosive product is intended for the rust prevention of metal surfaces of mechanisms and tools, in particular closed profiles. This product contains a unique set of additives, which solves the problem of concealed rust, eliminates existing rust and protects against new rusting. It has penetrating properties and leaves a durable, water resistant and elastic coating. Meets following specification: ZN-MDX-SK-02001.
VECONOL LR-200R	130	45	waxy brown	This penetrating lubricant contains a volatile, hydrocarbon solvent. It can be easily applied onto lubricated surfaces and it penetrates places which are not easily accessible. After the solvent's evaporation, a thin, greasy, high viscosity layer is left on the metal surface ensuring effective long-term lubrication. This product is recommended for the lubrication of chains, wire ropes, hinges, movable pins and similar objects. It is also manufactured in the form of a spray and is then called Veconol LR-200R/S. Meets following specification: ZN-PTX-SK-03065.

VECO RELEASE AGENTS FOR BUILDING INDUSTRY

Product	Kinematic viscosity (at temperature of), [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
AUXILIARY MOULD FORMULATIONS FOR THE MANUFACTURING OF CERAMIC ELEMENTS				
VECO Ceramic C-B C-B/30 C-S	5 (40 °C) 6 (40 °C) 5 (40 °C)	52 53 100	- - -	<p>These release agents are intended for the lubrication of moulds and equipment in the manufacturing of ceramic products, mainly porcelain ones. They are particularly recommended for the mechanical extrusion moulding of porcelain products. The formulation Ceramic C-B is manufactured in two quality grades: C-B and C-B/30. The formulation Ceramic C-B/30 contains an increased number of anti-adhesion additives and its application is mainly based on its addition to the substance for the end product, a process which guarantees the formation of its very smooth surface. Ceramic C-S contains anti-adhesion additives of natural origin and is characterised by its insignificant smell and very clear colour, features due to which it is not troublesome during its use and does not cause the discolouring of the formed elements. The products Ceramic C-B, C-S are also superbly suited as release agents for the manufacturing of aggregate concrete elements when applied on steel, plywood and laminate moulds.</p> <p>Meets following specification: ZN-PTX-OR-07001.</p>
MOULD PRODUCTS FOR THE MANUFACTURING OF AGGREGATE CONCRETE ELEMENTS				
VECOForm 10 46 70	12 (40 °C) 46 (40 °C) 70 (40 °C)	94 190 270	-15 -12 -9	<p>These release agents are intended for the lubrication of steel, plywood and laminate moulds in the manufacturing of aggregate concrete products, facilitating their un moulding. The VecoForm formulations vary in their viscosity grade and contents of anti-adhesion additives.</p> <p>Meets following specification: ZN-PTX-OR-07101.</p>
VECOForm EKO 20	10 (40 °C)	120	-18	<p>This release agent is manufactured using biodegradable vegetable oil intended for the lubrication of steel, plywood and laminate moulds in the manufacturing of ceramic and aggregate concrete products, it facilitates un moulding. The oil prevents the adherence of the concrete substance to the mould's surfaces and guarantees the anti-corrosion protection of metal moulds.</p> <p>Meets following specification: ZN-PTX-OR-07601.</p>

VECO RELEASE AGENTS FOR BUILDING INDUSTRY

Product	Kinematic viscosity (at temperature of), [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECOForm EMU-3	-	230	-	This anti-adhesion emulsion is intended for the lubrication of steel moulds in the manufacturing of precast concrete products and in the building industry, it facilitates unmoulding. This emulsion prevents the adherence of the concrete substance to the mould's surfaces and it is particularly recommended for the coating of moulds in the manufacturing of aggregate concrete. Meets following specification: ZN-MDX-OR-07801.
VECOForm C-40 C-60/20 FL	1,5 (40 °C) 2 (40 °C) 3 (40 °C)	53 65 66	- - -	This release agent is intended for the lubrication of moulds and shuttering in the manufacturing of concrete elements facilitating their unmoulding and providing their high surface finish. This is a partly evaporating product that guarantees the even course of the manufacturing process and a high quality, proper shape and smooth surface of the precast products. It is recommended for the manufacturing process of concrete elements which are coated with paint immediately after the prefabrication is finished. This release agent functions work well in plywood, metal and laminate moulds. It is recommended to apply this product by means of an atomizer or other spraying equipment in order to get a thin and evenly distributed layer. Meets following specifications: Vecoform C-40 - ZN-MDX-OR-07003; Vecoform C-60/20 - ZN-MDX-OR-07004; Vecoform FL – ZN-MDX-OR-07005.
VECO Ceramic K-2	2 (40 °C)	105	-	This release agent is intended for the lubrication of moulds in the manufacturing of small, concrete elements with high smoothness. It is recommended for the lubrication of plastic moulds in the manufacturing of concrete spacers. Meets following specification: ZN-MDX-OR-07006.
VECOForm E	27 (40 °C)	200	-15	This emulsifying product is intended for the formation of an emulsion used for the lubrication of wooden moulds in the manufacturing of precast, concrete products and wooden shuttering used in the building industry, it facilitates unmoulding. This product prevents the adherence of the concrete substance to the mould's surfaces. Meets following specification: ZN-PTX-OR-07501.

VECO RELEASE AGENTS FOR BUILDING INDUSTRY

Product	Kinematic viscosity (at temperature of), [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
MOULD PRODUCTS FOR THE MANUFACTURING OF CELLULAR CONCRETE ELEMENTS				
VECOForm Synti	-	180	0	This synthetic release agent is intended for the lubrication of steel moulds in the manufacturing of precast, concrete products facilitating their unmoulding. This product prevents the adherence of the concrete substance to the mould's surfaces and guarantees the anti-corrosion protection of metal moulds. It is recommended for the use in the manufacturing of both aggregate and cellular concrete elements. Meets following specification: ZN-MDX-OR-08002.
VECOForm T B-1	21 (40 °C) 72 (40 °C)	120 185	-15 0	This release agent is intended for the lubrication of steel moulds in the manufacturing of precast, concrete products and in the building industry facilitating unmoulding. This product prevents the adherence of the concrete substance to the mould's surfaces and guarantees the anti-corrosion protection of steel moulds. Vecoform B-1 is recommended for the coating of high temperature autoclaved moulds in the manufacturing of cellular concrete whereas Vecoform T may be used in the manufacturing of both aggregate and cellular concrete elements. Meets following specifications: ZN-PTX-OR-07101, PN-B-19305.
VECOForm B B-100 B-220	95 (40 °C) 220 (40 °C)	200 260	-9 -9	This release agent is intended for the lubrication of steel moulds in the manufacturing of concrete plaster blocks facilitating their unmoulding. This product prevents the adherence of the concrete substance to the mould's surfaces and guarantees the anti-corrosion protection of metal moulds. It may be applied by spraying. This release agent is particularly suited for the manufacturing of light-coloured elements. Meets following specification: ZN-PTX-OR-07401.
VECOForm BT Special 10 22 150	10 (40 °C) 22 (40 °C) 150 (40 °C)	160 180 200	-9 -9 -12	This release agent is intended for the lubrication of steel moulds in the manufacturing of precast cellular concrete products facilitating their unmoulding. This product prevents the adherence of the concrete substance to the mould's surfaces and guarantees its protection against corrosion and sediment formation. It may be applied manually or by spraying. This release agent shows exceptionally good mould adhesion properties. Meets following specification: ZN-MDX-00/OR-07401.
VECOForm BG-50 BG-70	50 (40 °C) 70 (40 °C)	230 240	-3 -3	This release agent is intended for the lubrication of steel moulds in the manufacturing of precast, concrete products facilitating their unmoulding. It is particularly recommended for the coating of high temperature autoclaved moulds in the manufacturing of cellular concrete. Its exceptional set of enriching additives allows for the preparation of a water emulsion with oil contents higher than 50%. Meets following specification: ZN-PTX-OR-07701.

VECO RELEASE AGENTS FOR BUILDING INDUSTRY

Product	Kinematic viscosity (at temperature of), [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
VECOForm B-2	43 (50 °C)	220	-3	<p>This release agent, suited for the formation of a water emulsion, is intended for the lubrication of steel moulds in the manufacturing of precast, concrete products and in the building industry facilitating unmoulding. It prevents the adherence of the concrete substance to the mould's surfaces. This release agent contains stable anti-adhesion additives and guarantees good anti-corrosion protection of metal moulds.</p> <p>Meets following specification: ZN-PTX-OR-07301.</p>

VECO TECHNOLOGICAL PRODUCTS

Product	Kinematic viscosity [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
TECHNOLOGICAL FORMULATIONS				
VECO Tenol KC	31,0 (w 100 °C)	280	-6	This mineral oil is intended for the impregnation of power cable insulation. It is a component for the manufacturing of cable impregnating agents and filling compounds. Meets following specification: ZN-PTX-OT-10001.
VECO Tenol PN PN-7 PN-20 PN-30 PN-70 PN-100 PN-500	6,8 (w 40 °C) 20,0 (w 40 °C) 31,0 (w 40 °C) 71,0 (w 40 °C) 105,0 (w 40 °C) 505,0 (w 40 °C)	180 210 220 230 240 300	-27 -18 -15 -12 -9 -9	This oil is used as a softening agent in the manufacturing of synthetic mixtures of thermoplastic rubbers in order to obtain their right plasticity while keeping them resistant to abrasion. It may also be used as a machining lubricant in metalworking processes where the oil's high resistance to ageing (oxidation) and ability to transfer high loads are not required. Meets following specification: ZN-PTX-OT-10002.
VECO ImpregnoI E ES	32 (100 °C) 29 (100 °C)	310 280	-9 0	These oils form the emulsions with water that are intended for the impregnation of mineral wool during its manufacturing process. ImpregnoI ES forms a durable, very stable emulsion. Meets following specification: ZN-PTX-OI-10002.
VECO Tenol AZ	10,0 (w 100 °C)	220	-	This technological formulation is intended for the spraying of mineral fertilizers in order to prevent their balling and dusting during their manufacturing and storage. It is recommended to be used in the manufacturing of all types of mineral fertilizers.
VECO Tenol PP	15,0 (w 100 °C)	220	-	This technological formulation is intended for the spraying of mineral fertilizers in order to prevent their dusting during their manufacturing, transport and packing. It is recommended to be used in the manufacturing of all types of mineral fertilizers.

VECO BIODEGRADABLE PRODUCTS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
MOTOR OILS				
VECO Mix Syntex S	8,0 (w 100 °C)	190	-30	This synthetic, ecological, biodegradable motor oil is intended for the lubrication of modern, powerful, two-stroke engines, air cooled or equipped with water cooling systems (closed or taking water from the lake/river/sea), propelling motor boats, yachts and water scooters. The oil does not contain a solvent and requires mechanical mixing with fuel. Unless the engine manufacturer recommends another mixture, an oil-fuel mix in a proportion of 1 : 100 needs to be applied. Meets following specifications: API TC, TC+, TD, NMMA TC-W3, fluidity and mixability grade according to SAE J 1536 M/F-3.
HYDRAULIC OILS				
VECO BioEkoI 46	46	180	-39	The VECO BioEkoI 46 is a high quality, biodegradable, hydraulic oil that is intended to be used in hydraulic systems particularly where the effluent of oil may cause harm to the natural environment. Meets following specification: ZN-MDX-OH-10007.
INDUSTRIAL OILS				
VEXOL EKO	60	200	-9	The chain saw Vexol EKO is a high quality, biodegradable oil that is intended for the lubrication of the cutting system and engine guides in chain saws. Meets following specification: ZN-PTX-OM-04005.
VECO BioEkoI HD 460	450	240	-15	The oil VECO BioekoI HD 460 is a high quality, biodegradable, machine oil destined for the lubrication of various types of mechanisms, operating at moderate or high mechanical loads and at moderate thermal loads, particularly where leaking of the oil can effect the environment. Meets following specification: ZN-MDX-OM-04401.
Vecoformit EKO	34	220	-12	This biodegradable, emulsifying oil is intended for the preparation of a water emulsion that is recommended to be applied as an anti-adhesion product for the coating of open load-carrying bodies for the manufacturing of bituminous materials, the coating of wooden moulds in the manufacturing of precast concrete elements and other wooden moulds and shuttering used in the building industry. Due to the application of a set of emulsifiers, the emulsion is very stable: it does not decay even in systems without mixing or circulation and may be stored even more than 48 hours. The 10% emulsion is mostly used, but an experimental selection of the concentration for the operating conditions is recommended.

VECO BIODEGRADABLE PRODUCTS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
RELEASE AGENTS				
VECOFORM EKO 20	60	200	-9	This anti-adhesive product is an enriched formulation based on biodegradable, vegetable oil and it is intended for the lubrication of steel and wooden moulds used in the manufacturing of concrete and ceramic products. VecoForm EKO 20 is used in order to facilitate the unmoulding of manufactured concrete and ceramic elements. The oil prevents the adherence of the concrete substance to the mould's surface and ensures the metal moulds' anti-corrosion protection. Meets following specification: ZN-MDX-OR-07601.
Product	Consistency grade NLGI	Dropping point [°C]	Range of operating temperatures [°C]	Application
PLASTIC GREASES				
Vecosal Syntex Bio - 2	2	220	-20 do 110	Vecosal Syntex Bio-2 is the highest quality, complex, aluminium grease that is manufactured on the base of synthetic, biodegradable ester oil. It is intended for the lubrication of equipment in various industries where there is a risk of environmental pollution.
Vecosal Bio - 2	2	150	-20 do 110	This complex, aluminium and calcium grease is manufactured on the base of vegetable oil. It can operate at a broader range of temperatures than calcium greases. This grease is recommended for the lubrication of machinery and equipment where there is a risk of environmental pollution.
Veconit Bio 1 2	1 2	- -	-25 do 110	This bentonite grease is manufactured on the base of vegetable oil. It is an ecological, biodegradable and water resistant product. This grease is intended for the lubrication of moderately and highly loaded machinery and equipment where there is a risk of environmental pollution. Veconit Bio is recommended to be applied in the water, forestry and agricultural industries.
Vecocal Bio 2 3	2 3	95 100	-25 do 60	This calcium grease Vecocal Bio is manufactured on the base of vegetable oil. It is an ecological, biodegradable and water resistant product. This grease is intended for the lubrication of lightly and moderately loaded machinery and equipment where there is a risk of environmental pollution. Vecocal Bio is recommended to be applied in the water, forestry and agricultural industries.

VECO SOLVENTS AND WASHING-RUST PREVENTIVE PRODUCTS

Product	Kinematic viscosity at 20 °C, [mm ² /s]	Flash point, [°C]	Mass density at 15 °C, [kg/litr]	Application
SOLVENTS				
VECO Mineral Spirits	1,8	40	0,8	This product is intended to be used as a solvent or diluent for lacquer products. The light oil product is obtained from the conservative processing of crude oil submitted to hydro-finishing and rectification.
VECO Extraction Naphtha	-	-	0,7	This product is intended to be used as a solvent in the rubber and dyeing industry and for degreasing in the metal industry. The light oil product is obtained from the conservative processing of crude oil. It is composed of light, low-boiling hydrocarbon fractions devoid of aromatic hydrocarbons and sulphur.
VECO Antykor B	2,0	50	0,8	This product is intended for the washing and dissolving of oil and fatty products and for temporary, anti-corrosion protection. It is recommended for the removal of rust preventive coatings and lubricants from metal machinery parts.
VECO Antykor BV	2,0	56	0,8	This product is intended for the washing and dissolving of oil and fatty products and for temporary, anti-corrosion protection.
VECO Antykor D	1,7	65	0,77	This product is intended for the dissolving and washing of oil and fatty products and for temporary, anti-corrosion protection. The set of light mineral oils in VECO Antykor D is ecological, safe for the health of employees and guarantees high fire safety (it belongs to the group of third grade fire danger products).
VECO Antykor S	2,0	60	0,82	This synthetic product is intended for the washing and dissolving of oil and fatty products and for temporary, anti-corrosion protection. It does not contain halogen-organic compounds or aromatic hydrocarbons and shows relatively low volatility. As a result, this product is odour-free, safe for human health and user friendly.

VECO SOLVENTS AND WASHING-RUST PREVENTIVE PRODUCTS

Product	Kinematic viscosity at 20 °C, [mm ² /s]	Flash point, [°C]	Mass density at 15 °C, [kg/litr]	Application
Vecorol ZE-27 R10	1,7	-	0,78	This product is intended for the cleaning and rust prevention of electrical contacts. This is a semi-synthetic product containing oxidation inhibitors and washing additives.
VECO Cleaner HT	200	220	0,98	This product is intended for the washing of oil circulation systems. It is applied as an additive to circulating oil before its exchange. It causes the separation and dissolution of sediments, waxes and other impurities that occur in the circulation system. This product is easily and evenly distributed in the whole system. It guarantees anti-corrosion protection.
NON-OIL SOLVENTS				
Product	Colour	pH	Mass density, [g/cm ³]	Application
VECO Solvent E-100	colourless	-	0,78	This product is intended for the washing and degreasing of machinery elements and equipment where the use of oil derivative solvents is not advisable. It is recommended for the washing of electronic components, rubber or plastic elements and metal parts of precise mechanisms.
VECO Cleaner MW MW-1 MW-2	light yellow yellow	9,1 (2 % solution) 9,2 (2 % solution)	1,04 1,05	This water-dilutable product is intended for the washing and degreasing of metal surfaces both in cool and hot conditions. The best results are obtained at a temperature of 50 - 80°C. It has excellent washing and anti-corrosion properties. Veco Cleaner MW-1 is destined to be used in spraying washers and immersion baths. It has a low tendency to foaming. Veco Cleaner MW-2 is recommended to be used in immersion baths. Meets following specification: ZN-MDX-SK-01103.
VECO Cleaner W	colourless	11,0	1,01	This washer is intended for the removal of Veconol W rust preventive coatings. The best results are obtained at a temperature of 40 - 50°C. In these conditions, removal of the coatings is possible without intensive circulation of the washer. Meets following specification: ZN-PTX-SK-01102.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
CAR GREASES				
GENERAL USE GREASES				
Vecolit SP 7/9	2	200	250	This general use, car grease is intended for the lubrication of articulations, pins and other chassis elements. It operates at temperatures ranging from -50 to 130°C. The use of low viscosity base oil allows for its application in window mechanisms, seat guides, locks and electric drives. This grease is resistant to water washing and guarantees protection against corrosion in a humid environment. Meets following specifications: DIN 51 502 (DIN 51 825): K 2 K 50, ZN-PTX-SP-11002, Fiat 9.55580: grease grade VII, grade IX.
Vecolit LB	2	206	200	This grease is intended for the lubrication of bearings of vehicles and industrial equipment. It operates at temperatures ranging from -50 to 140°C. It may be applied in central lubrication systems. Meets following specifications: ZN-PTX-SP-10601, ASTM D 4950: GB/LB, DIN 51 502 (51 825): KP 2 N-30.
Vecolit MOS	2	203	315	This grease, with an additive of molybdenum disulfide, is intended for the lubrication of mechanisms of vehicle chassis and industrial equipment operating in conditions with impact loads, vibrations and dustiness. It operates at temperatures ranging from -50 to 140°C. This grease is recommended for the lubrication of homokinetic car articulations. Meets following specifications: ZN-PTX-SP-10601, ASTM D 4950: GB/LB, DIN 51 502 (51 825), KPF 2 N-
Vecolit GB 222 MB	2	180	250	This high quality, car grease is intended for the lubrication of hub bearings and chassis elements operating in conditions with impact loads and vibrations at temperatures ranging from -30 to 130°C. It stands instantaneous overheating up to 150°C. Meets following specifications: Daimler Chrysler MB 267.0, MAN 283 Li-P, ASTM D4950: GB/LB, DIN 51 502, DIN 518 25: KP 2 K-30.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
BEARING GREASES				
Vecoplex GC-1 GC-2 GC-3	1 2 3	274 278 284	250 250 250	This high quality, bearing grease is intended for the lubrication of car hub bearings, industrial anti-friction and plain bearings operating at temperatures ranging from -40 to 160°C. The grease is mechanically and thermally very stable. It superbly stands momentary overheating up to 200°C. This grease is recommended for wheel hub bearings with disk brakes and for long-term or non-maintenance (i.e. without exchanges) lubrication. Meets following specifications: ASTM D 4950: GC, ZN-PTX-SP-10604. DIN 51 502, (DIN 518 25): KP 1 K-30, KP 2 K-30, KP 3 K-30 (accordingly Vecoplex GC-1, GC-2 and GC-3).
Vecolit Super 4S 2 3	2 3	210 212	160 160	This bearing grease is intended for the lubrication of anti-friction bearings and mechanisms operating in usual conditions at temperatures ranging from -30 to 130°C. Meets following specifications: ZN-PTX-SP-10101, DIN 51 502, (DIN 518 25): K 2 N-30, K 3 N-30 (accordingly for 4S 2 and 4S 3).
GREASES FOR CENTRAL LUBRICATION SYSTEMS				
Vecolit Syntex EPX-00	00	160	200	This semi-liquid, synthetic grease is intended for automotive and industrial central lubrication systems operating at temperatures ranging from -40 to 100°C. It stands momentary overheating up to 110°C. This grease may be used in an environment with considerable dustiness. Meets following specifications: MAN 51 502, DIN 51 825: KH CP 00 G-40, Willy Vogel, MAN 283 Li-P 00/000, MB 264.0.
Vecolit EPX 000 00 0	000 00 0	160 180 185	315 315 315	This semi-liquid, high quality grease is intended for automotive and industrial, central lubrication systems operating at temperatures ranging from -30 to 100°C. This grease is recommended for the use in an environment with considerable dustiness. Meets following specifications: DIN 51 502 (DIN 51 826, DIN 51825): GP 000 G-30 for Vecolit EPX-000, GP 00 G-30 for Vecolit EPX-00, GP 0 G-30 for Vecolit EPX-0, ZN-PTX-SP-11101.
CHASSIS GREASES				
Vecolit LBG	2	200	315	This high quality grease is intended for the lubrication of vehicle and industrial equipment chassis, operating in conditions with impact loads in a dusty and corrosive environment at temperatures ranging from -40 to 140°C. This grease is particularly recommended for the lubrication of chassis of earthwork machinery, mining equipment including runners of mining conveyor belts and sea transport systems. Meets following specifications: ZN-PTX-SP-10602, DIN 51 502 (DIN 51 825): KPF 2 N-30.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecocal STP	1	100	160	This grease is intended for the lubrication of vehicle chassis mechanisms, operating in usual conditions at temperatures ranging from -30 to 60°C. Meets following specifications: ZN-PTX-SP-12001, PN-C-96129, PN-C-96153.
Graphited Vecocal	2/3	100	800	This grease with graphite additive is intended for the lubrication of vehicle chassis mechanisms and low precision mechanisms (concrete mixer gears, screw gears, guides), operating in usual conditions. It may be used as an assembling grease, facilitating the assembling and dismantling of screw joints and pivots. This grease operates at temperatures ranging from -30 to 60°C. Meets following specifications: ZN-PTX-SP-12001, PN-C-96129, PN-C-96153.
Vecolit EPX/B-2 EPX/B-3	2 3	202 204	250 250	This grease is intended for the lubrication of low speed, anti-friction and plain bearings, pivots and springs operating at temperatures ranging from -20 to 120°C. This grease is resistant to water washing and guarantees anti-corrosion protection in a humid environment. Meets following specifications: ZN-PTX-SP-11103, DIN 51 502 (DIN 51 825): KP 3 K-20.

INDUSTRIAL GREASES

GENERAL USE GREASES

Vecoplex GC-1 GC-2 GC-3	1 2 3	274 278 284	250 250 250	This high quality, bearing grease is intended for the lubrication of industrial and car bearings operating at temperatures ranging from -40°C to 160°C. The grease is mechanically and thermally very stable. It superbly stands momentary overheating up to 200°C. This grease is recommended for the hot bearings of fans and electrical engines and it is also suited for long-term and non-maintenance (i.e. without exchanges) lubrication. The greases Vecoplex GC-1 and Vecoplex GC-2 are recommended for central lubrication systems operating at high temperatures. Meets following specifications: ASTM D 4950: GC, ZN-PTX-SP-10604. DIN 51 502, (DIN 518 25): KP 1 K-30, KP 2 K-30, KP 3 K-30 (accordingly Vecoplex GC-1, GC-2 and GC-3).
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VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecolit EP-1 EP-2 EP-3	1 2 3	195 200 205	250 250 250	This high quality, bearing grease is intended for the lubrication of anti-friction and plain bearings, articulations, guides and other mechanisms of industrial equipment exposed to high loads and momentary overloads operating at temperatures ranging from -40 to 140°C. Vecolit EP-2 may be used in central lubrication car systems. Vecolit EP-3 is recommended when the grease's sealing properties are essential. Vecolit EP-1 is basically intended for central lubrication systems with significant pressing resistance. Meets following specifications: DIN 51 502 (DIN 51 825), ZN-PTX-SP-10501.
Vecolit EP-222	2	200	250	This high quality, bearing grease is intended for the lubrication of anti-friction and plain bearings, articulations, guides and other mechanisms exposed to high unit pressures or momentary overloads operating at temperatures ranging from -30 to 140°C. It is resistant to water washing. The grease's high homogeneity and purity allows for the lubrication of high precision mechanisms. Meets following specifications: Designation according to DIN 51 502 (DIN 51 825): K 2 N-30, ZN-MDX-SP-10502.
Vecolit SF - 2	2	211	160	The general use, bearing grease is intended for the lubrication of anti-friction and plain bearings as well as articulations operating in normal conditions at temperatures ranging from -30 to 120°C. This is a consistency grade 2 grease showing good water, high temperature and corrosion resistance. Meets following specifications: ZN-PTX-SP-10201, DIN 51825: K2 K-30.
Vecocal SM-2 SM-3	2 3	104 106	125 125	This multifunctional, machine grease is intended for the lubrication of plain bearings and other mechanisms operating in usual conditions at temperatures ranging from -30 to 60°C. The grease Vecocal SM-2 may be used in central lubrication systems. Meets following specifications: PN-68/C-96130, DIN 51 825: K 2 C-30 for SM-2; K 3 C-30 SM-3, ZN-PTX-SP-12101.
BEARING GREASES				
Vecoplex Syntex XHP 2	2	280	315	The highest quality, synthetic grease is intended for the filling of bearings operating in hard conditions. It shows high, mechanical stability and ageing (oxidation) resistance. It may operate at a temperature up to 160°C with the possibility of overheating. This grease is recommended for the lubrication of high speed bearings and for long-term or non-maintenance (i.e. without exchanges) lubrication.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecoplex EP-2/150 EP-2/220 EP-2/320	2 2 2	275 275 280	400 400 400	<p>This grease is intended for the lubrication of highly loaded, anti-friction and plain bearings. It is recommended for operation in conditions with high loads, impact loads, dustiness or vibrations at temperatures ranging from -20 to 160°C. Due to its high stability, this grease is suited for long-term and non-maintenance (i.e. without exchanges) lubrication. It also shows good resistance to water washing.</p> <p>Meets following specifications: DIN 51 502 (DIN 51 825): Vecoplex EP-2/150 - KP 2 N -30, Vecoplex EP-2/220 - KP 2 P -20, Vecoplex EP-2/320 - KP 2 P -20; ZN-PTX-SP-10552.</p>
Vecolit EP-LN 2 EP-LN 3	2 3	205 210	250 250	<p>This high quality grease is intended for anti-friction bearings and mechanisms exposed to high loads and momentary overloads operating at temperatures ranging from -40 to 150°C. It is resistant to water washing and guarantees anti-corrosion protection in a humid environment. Its high homogeneity and purity allows for the lubrication of highly precise mechanisms and its application in central lubrication systems.</p> <p>Meets following specifications: ZN-PTX-SP-10504, ASTM D 4950: GB-LB, Fiat 9555.80, DIN 51 825: KP 2 N-30 – Vecolit EP-LN 2, KP 3 N-30 – Vecolit EP-LN 3, F&T Krašnik S.A. WTm-238.</p>
Vecolit Super 4 1 2 3	1 2 3	205 211 212	160 160 160	<p>This universal, bearing grease is intended for the lubrication of anti-friction bearings and mechanisms operating in usual conditions at temperatures ranging from -30 to 120°C. Vecolit Super 41 or Vecolit Super 42 are used in central lubrication systems. The grease Vecolit Super 43 is distinguished by its sealing properties.</p> <p>Meets following specifications: DIN 51 825: K 1 K-40 for NLGI 1, K 2 N-30 for NLGI 2, K 3 N-30 for NLGI 3, ZN-PTX-SP-10001, PN-72/C-96134.</p>
GEAR AND CENTRAL LUBRICATION GREASES				
Vecoplex Syntex EPX 4600	00	200	315	<p>This semi-liquid, synthetic grease is manufactured from a high viscosity base stock and it is recommended for the lubrication of open and closed gears operating at temperatures ranging from -40 to 100°C. This grease stands short overheating up to 140°C.</p> <p>Meets following specifications: DIN 51 502, DIN 51 825: GH CP 00 G-40.</p>
Vecoplex Syntex EPS 1600	00	200	200	<p>This semi-liquid, synthetic grease is intended for the lubrication of open and closed gears operating at temperatures ranging from -50 to 100°C. This grease stands short overheating up to 140°C.</p> <p>Meets following specifications: DIN 51 502, DIN 51 825: GH C 00 G-50.</p>

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecolit EPS 00 0 1 2	00 0 1 2	190 194 200 203	200 200 200 200	This grease has high metal adhesion properties and resistance to water washing. The greases Vecolit EPS-00 , EPS-0 and EPS-1 are successfully applied in industrial central lubrication systems, slow speed closed toothed gears and gears of electrical tools. The greases Vecolit EPS-1 and EPS-2 are used for the lubrication of open gears. Vecolit EPS-2 is a multifunctional grease with increased resistance to water and it is suited for the lubrication of industrial equipment exposed to the working of water as well as plain bearings and car chassis. Meets following specifications: DIN 51 826, DIN 51825: GP 00 G-30 - Vecolit EPS-00, GP 0 G-30 - Vecolit EPS-0, GP 1 K-30 i KP 1 K-30 - Vecolit EPS-1, KP 2 K-30 - Vecolit EPS-2, ZN-PTX-SP-11001.
Vecolit EPSG-00 EPSG-0 EPSG-1	00 0 1	180 190 200	800 800 800	This grease has high metal adhesion properties, resistance to water washing, low flow resistance in central lubrication systems and neutrality to impurities. This grease is particularly recommended for the use in equipment operating in high dustiness and for the lubrication of insufficiently sealed mechanisms – e.g. mechanisms in mines, cement and building material factories. It is successfully applied in industrial, central lubrication systems; low speed, closed, toothed gears; gears of electrical tools and other mechanisms operating at a temperature from –30 to 100 (Vecolit EPSG-1 – to 120°C). Vecolit EPSG-1 is used for the lubrication of open gears with a central lubrication system. Meets following specifications: DIN 51502 (DIN 51825, DIN 51826): Vecolit EPSG-00 – GPF 00 G-30, EPSG-0 – GPF 0 G-30, EPSG-1 – GPF 1 K-30; KPF 1 K-30.
Vecocal CSW-1 CSW-2	1/2 2/3	100 105	160 160	This water resistant, multifunctional grease is intended for the use in industrial central lubrication systems and particularly in central lubrication systems of metal rolling equipment operating in usual conditions at temperatures ranging from –10 to 60°C. Meets following specifications: ZN-PTX-SP-12201, PN-68/C-96145.
Grease 1500	1500 [mm²/s] (kinematic viscosity at 40 °C)	-	315	This special lubricant with very high viscosity is intended for the all year round lubrication of gears including slow speed and worm gears operating at a temperature ranging from –20 to 100°C. It meets today's legal regulations in the field of Safety and Hygiene at Work and environmental protection, thanks to which it forms an alternative to asphalt gear greases. Meets following specification: ZN-PTX-OP-11018.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Veconol GX-KZ	2000 [mm ² /s] (kinematic viscosity at 100 °C)	-	315	This special lubricant, on the base of high viscosity oil, is intended for the lubrication of slow speed gears and highly loaded, toothed and worm gears. It is recommended for rail vehicle gears and gears of equipment used in the mining industry. This grease contains additives increasing its long-term adhesion to metal surfaces. Meets following specification: ZN-MDX-SK-05001.
Veconol ZKE-Z ZKE-L	60 [mm ² /s] 90 [mm ² /s] (lepkość kinematyczna w 100 °C)	- -	315 315	This special lubricant is manufactured on the base of oil with industrial asphalt and metal adhesion additives. It is destined for the lubrication of highly loaded open gears including low speed and worm gears. It is manufactured in two seasonal versions – summer: Veconol ZKE–L and winter: Veconol ZKE–Z. Meets following specification: ZN-MDX-SK-10901.
GREASES FOR HARD OPERATING CONDITIONS				
Vecoplex XD/EP 1002	2	250	800	This grease, on the base of oil with very high viscosity, is intended for the use in very hard operating conditions, with shock loads and at high temperature, where the use of conventional multifunctional greases is not possible. This grease has exceptionally high, metal adhesion properties, thanks to which it superbly operates in high dustiness, high shock loads, oscillatory movements, high humidity or the presence of water. This grease is recommended to operate at temperatures ranging from –20 to 140 °C. It stands short overheating up to 180 °C. Meets following specifications: DIN 51 502, DIN 51 825: KP2 N-20.
Vecoplex HV-2M	2	265	620	This grease is manufactured on the base of oil with very high viscosity, with a molybdenum disulfide additive. It is intended for the lubrication of highly loaded, low speed mechanisms operating at a temperature from -20 to 130 °C. This grease is particularly recommended for the use in mechanisms operating in conditions with vibrations or high dustiness. It is extremely resistant to extrusion and the working of water. The grease's high, mechanical and thermal stability allows for its application for long-term or non-maintenance (i.e. without exchanges) lubrication. Meets following specifications: DIN 51 502 (DIN 51 825): KPF 2 K-20, ZN-MDX-SP-11111.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecoplex Syntex HT/EP 102 HT/EP 202 HT/EP 462	2 2 2	260 260 260	315 315 315	This synthetic grease is intended for the lubrication of highly loaded, conic and barrel anti-friction bearings and plain bearings, particularly in operating conditions with high temperatures, high loads, shock loads, dustiness or vibrations. The grease's high mechanical and thermal stability allows for its application for long-term or non-maintenance (i.e. without exchanges) lubrication. This grease is recommended to operate at a temperature from -30 to 150°C. Vecoplex Syntex HT/EP 202 and 462 stand short overheating up to 220°C. Meets following specifications: DIN 51 502, DIN 51 825: Vecoplex Syntex HT/EP 102—KH CP 2N -30, Vecoplex Syntex HT/EP 202 i 462—KH CP 2P -30.
Veconit B-1 B-2	1 2	>350 >350	- -	This bentonite grease is intended for the lubrication of anti-friction and plain bearings, gears, guides and other mechanisms operating at a temperature of 100 - 160°C, and, when frequently completed – even to 200°C. It may be used as an assembly grease enabling the later disconnection of screw joints and pivots operating at high temperatures. This grease is not recommended for the lubrication of vehicle subassemblies and bearings with a small turning moment. Meets following specifications: ZN-PTX-SP-10401; DIN 51 502 (DIN 51 825): K1 P-20 for Veconit B-1, K2 P-20 for Veconit B-2, KPF1 P-20 for Veconit B-1 MOS, KPF2 P-20 for Veconit B-2 MOS.
Veconit B-1 MOS B-2 MOS	1 2	>300 >300	- -	This bentonite grease, with a molybdenum disulfide additive, is intended for the lubrication of anti-friction and plain bearings, gears, guides and other mechanisms operating in conditions with impact loads, high dustiness and vibrations. It is recommended to operate at a temperature of 100 - 160°C, and, when frequently completed – even to 200°C. It may be used as an assembly grease enabling the later disconnection of screw joints and pivots operating at high temperatures. This grease is not recommended for the lubrication of vehicle subassemblies and bearings with a small turning moment. Meets following specifications: ZN-PTX-SP-10401; DIN 51 502 (DIN 51 825): K1 P-20 for Veconit B-1, K2 P-20 for Veconit B-2, KPF1 P-20 for Veconit B-1 MOS, KPF2 P-20 for Veconit B-2 MOS.
Veconit Syntex HT	2	>330	250	This synthetic, bentonite grease is intended for anti-friction bearings and other mechanisms operating at a temperature ranging from -30 to 200°C, and, when frequently completed – even to 250°C. Its superb thermal stability allows for long time periods between exchanges. This grease is nearly infusible and does not leak even when the operating temperature exceeds 250°C. The grease may be used in conditions with impact loads, vibrations and high dustiness. It is resistant to water washing and has the additional advantages: it is compatible with a large number of elastomers, it suits for the lubrication of metal-plastic and metal-rubber mechanisms. Meets following specifications: DIN 51 502 (51 825): KP 2 S-30, ZN-MDX-SP-10453.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Veconit Syntex HTX HTX MOS	2 2	>330 >300	315 315	<p>This special, bentonite grease is manufactured on the base of high viscosity, synthetic oil. It is intended for anti-friction bearings, gears, guides and other mechanisms operating at temperatures ranging broadly from –30 to 200°C, and, when frequently completed – even to 250°C. Its high mechanical and thermal stability allows for long time periods between exchanges. The grease is nearly infusible, does not leak from the lubricated equipment, even when the operating temperature rises to 250°C. It may be used in conditions with impact loads, vibrations and high dustiness. This grease is resistant to water washing and has the additional advantage that it is compatible with a large number of elastomers. It is not recommended for the lubrication of vehicle subassemblies and bearings with a small turning moment.</p> <p>Meets following specifications: DIN 51502 (51 825): KP 2 S-20 for Veconit Syntex HTX, KPF2 S-20 for Veconit Syntex MOS HTX; ZN-MDX-SP-10455.</p>
Vecolite EPS/MOS 2	2	204	400	<p>This grease, with a molybdenum disulfide additive, is intended for the use in low speed, closed toothed gears, gears of electrical tools and other mechanisms operating at a temperature from –30 to 130°C. It is recommended for application in equipment operating in an environment of high dustiness and for the lubrication of insufficiently sealed mechanisms – e.g. in mines, cement and building material factories. This grease shows excellent adhesion to metal surfaces, resistance to water washing and high neutrality to impurities.</p> <p>Meets following specifications: DIN 51 502 (DIN 51 825): KPF 2 N-30; ZN-PTX-SP-10606.</p>
Vecolite XT	2	205	250	<p>This grease has increased resistance to water washing. It is recommended for the use in a corrosively aggressive environment, e.g. ship deck mechanisms, mining machinery, rolling mills and car chassis.</p> <p>Meets following specification: ZN-PTX-SP-10801.</p>
Vecolite EPX/B-1 EPX/B-2 EPX/B-3	1 2 3	200 202 204	315 315 315	<p>This grease is manufactured on the base of high viscosity oil and it is intended for the lubrication of low speed, anti-friction and plain bearings. It has excellent lubricating properties – both in steel-steel associations and steel-copper alloys associations. The grease is recommended to operate at temperatures ranging from –20 to 120°C. It is resistant to water washing and guarantees anti-corrosion protection in a humid environment.</p> <p>Meets following specifications: DIN 51 502 (DIN 51 825): KP 2 K-20 for Vecolite EPX/B-2, KP 3 K-20 for Vecolite EPX/B-3, ZN-PTX-SP-11103.</p>

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecolit EPX/HD 902	2	180	500	This grease is intended for the use in very hard operating conditions, where the application of conventional multifunctional greases does not give satisfying results. This grease has exceptionally high metal adhesion properties, thanks to which it stays where it has been applied, even in conditions of high dustiness, high shock loads, oscillatory movements, high humidity or the presence of water. It is recommended to operate at temperatures ranging from -20 to 130°C. It stands short overheating up to 140°C. Meets following specifications: DIN 51 502, DIN 51 825: KP2 K-20.
Vecolit EPX/B-MOS-1	1	195	400	This grease, with a molybdenum disulfide additive, is intended for the lubrication of highly loaded low speed mechanisms operating in conditions with high dustiness and vibrations. It is very stable and resistant to the working of water. This grease is recommended to operate at temperatures ranging from -20 to 130°C. Its high stability allows for its application for long-term lubrication. Meets following specifications: DIN 51 502 (DIN 51 825): KPF 2 K-20; ZN-MDX-SP-11102.
Vecosal Complex B-2	2	260	250	This general use grease is intended for the lubrication of anti-friction and plain bearings, guides, articulations and other mechanisms. It combines its thermal and oxidation resistance with exceptional resistance to the working of water and steam. This grease does not undergo emulsifying or washing out by water and keeps its consistency at the working of water and steam. It is recommended for the use in mechanisms operating in a steamy environment, e.g. paper machinery, at temperatures ranging from -20 to 150°C. Meets following specifications: DIN 51 502 (DIN 51 825): KP 2 N-20, ZN-PTX-SP-11151.
Vecosal G-0 Autoclaving G-1	0 1	240 250	800 800	This grease, with a natural graphite additive, is intended for hard operating conditions. Vecosal G-0 is destined for the lubrication of low speed gears, anti-friction and plain bearings and other mechanisms operating at a temperature from -20 to 200°C. It is particularly recommended for the use in equipment operating at high temperatures (e.g. in rotary kilns for the manufacturing of cement) or in the presence of steam and water. Vecosal Autoclaving G-1 is destined for the lubrication of anti-friction and plain bearings, open gears, articulations, guides and other mechanisms operating at a temperature from -20 to 220°C, in an environment with steam or water washing. Meets following specifications: DIN 51502 (DIN 51 825, DIN 51 826):Vecosal G-0: GPF 0 N-20, Vecosal Autoclaving G-1: GPF 1 P-10; KPF 1 P-10; ZN-PTX-SP-11152.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecocal Semisyntax HD 902	2	140	315	This semi-synthetic, industrial grease is intended for hard operating conditions, in high humidity or the presence of water, in high dustiness, where good anti-corrosion protection is required. This grease is recommended to operate at temperatures ranging from –25 to 120°C. It stands short overheating up to 130°C. Meets following specifications: DIN 51 502, DIN 51 825: KP2 K-20.
Vecocal Complex C-0 C-1 C-2	0 1 2	250 260 270	315 315 315	This grease is intended for the lubrication of plain and anti-friction bearings and other mechanisms operating at a temperature from –20 to 180°C. It shows very high resistance to the working of water – also hot water and steam. This grease is mechanically and thermally stable. It is also recommended for the use in central lubrication systems of machinery and equipment operating at high temperatures. Meets following specification: ZN-MDX-SP-13101.
Vecocal Complex S-1 S-2	1 2	310 310	800 800	The highest quality, industrial grease is intended for the use in extremely hard operating conditions. It is recommended in conditions with high temperatures, high loads, high humidity, presence of sea water and high dustiness. This grease is destined to operate at temperatures ranging from –30 to 180°C, and, when frequently completed – even to 220°C. Due to the contents of EP and anti-wear additives, the lubricated mechanisms can transfer very high loads with a minimal risk of seizing or premature wearing. Meets following specifications: DIN 51 502, DIN 51 825: KP1 R-30 and KP2 R-30.
LUBRICATING AND ASSEMBLY PASTES				
Vecoplex P-P/50	1/2	200	800	This paste, with very high lubricating properties, is intended for the lubrication of various mechanisms operating at a temperature from –40 to 160°C, exposed to the working of exceptionally high loads and a dusty or corrosive environment. It may be applied as an assembly grease allowing for the easy disassembly of elements applied in a corrosive environment or at increased temperatures – even up to 650°C. Meets following specifications: DIN 51 502 (DIN 51 825): KPF 1 P-30; ZN-MDX-SP-10404.
Veconit MOS 125 MOS 225	1 2	>300 >330	800 800	This infusible, bentonite grease, with a molybdenum disulfide additive, is intended for operation in conditions of high dustiness and high loads at a temperature from –10 to 160°C. When frequently completed, this grease may operate at a temperature up to 220°C. As an assembly paste, it may be used at a temperature up to 600°C. Meets following specifications: DIN 51 502 (DIN 51825): KPF 2 P-10; ZN-PTX-SP-10401.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Veconit G-2/30	2	>330 (nietopliwy)	800	This paste has a natural graphite additive. It might be applied at a temperature from –10 to 160°C in conditions with high dustiness and high loads. When frequently completed, it may operate at a temperature up to 220°C. As an assembly paste, it may operate at a temperature up to 600°C. It guarantees good anti-corrosion protection in a humid environment. Meets following specifications: DIN 51825: KPF2 P-10, ZN-PTX-OO-10402.
Veconit Cu 1/15 Cu 1/65	1 1	>330 >330	800 800	This high temperature paste is a type of infusible grease that is manufactured on the base of a thermally resistant and non-volatile mineral residual oil, mainly used as an assembly paste. With limited air access, its thermal stability rises significantly. Its use allows for an easy disconnection of elements even if these that are exposed to a temperature of up to 1100°C. The paste's soft consistency facilitates its application and guarantees the leak-tightness of screw joints. Meets following specifications: DIN 51 825: KPF 1 P-10, ZN-MDX-SP-10403.
Vecocal Z-1/55	1	82	-	This paste is a type of grease that is manufactured on the base of a set of highly refined, lowly solidifying, mineral oils with zinc dust. This product contains also a thickener and corrosion and oxidation inhibitors. It is used for the lubrication, anti-corrosion protection and sealing of screw joints. The grease Vecocal Z-1/55 is particularly recommended for the lubrication of screw joints of drill pipes in exploratory bore holes. Meets following specification: ZN-MDX-PA-10405.
SPECIAL GREASES				
LOW AND BROAD RANGE TEMPERATURE GREASES				
Vecoplex Syntex HT/LT 2	2	260	315	This synthetic grease is intended for high speed bearings, precise mechanisms and operation at low temperatures. It is recommended to be applied in conditions with high loads and unit pressures at temperatures ranging from –40 to 140°C, with momentary temperature increases up to 200°C. Meets following specifications: DIN 51 502, DIN 51 825: KH CP 2 N-40.
Vecoplex Syntex LTP 2	2	260	200	This synthetic grease is intended for high speed bearings, precise mechanisms and operation at low temperatures – cooling equipment, aviation, operation in arctic conditions. It is destined to operate at temperatures ranging from –55 to 120°C, with momentary temperature increases up to 150°C. Meets following specifications: DIN 51 502, DIN 51 825: KH C2 K-50.

VECO PLASTIC GREASES

Product	NLGI consistency grade	Dropping point, [°C]	Weld point, [kG]	Application
Vecolit Syntex LT 1	1	190	200	This synthetic grease is intended for high speed bearings, precise mechanisms and operation at low temperatures – cooling equipment, aviation, operation in arctic conditions. It is compatible with a broad range of elastomers and therefore it is suitable for the lubrication of metal-plastic and metal-rubber mechanisms ensuring consistence with the majority of seals. This grease is destined to operate at temperatures ranging from –50 to 100°C. Meets following specifications: DIN 51 502, DIN 51 825: KHC 1 G-50.
Vecolit LMP	2	190	250	This special grease is intended for high speed bearings, precise mechanisms and operation at low temperatures – cooling equipment, aviation, operation in arctic conditions. It is destined to operate at temperatures ranging from –60 to 110°C. This grease has excellent lubricating properties, it is resistant to water washing and guarantees anti-corrosion protection in a humid environment. Meets following specifications: DIN 51 502 (51 825): KP 2 G-50; ZN-PTX-SP-10503.
Veconit LMP-S	2	330	250	This special grease is intended for high speed bearings, precise mechanisms and operation at low temperatures. It is recommended to be used at temperatures ranging from –60 to 180°C. It may operate in conditions with impact loads, vibrations, high dustiness and where anti-friction bearings are lubricated economically. Meets following specifications: DIN 51 825: K 2 P-50, ZN-PTX-OO-10451, MIL-G-81322D.
ARMY GREASES				
Vecolit LB-414	2	210	250	This high quality, multifunctional grease is intended for vehicle mechanisms, i.e. chassis and wheel hub bearings, and industrial equipment operating in conditions with high loads, impact loads and vibrations. This grease is recommended to operate at temperatures ranging from –40 to 140°C. Meets the army requirements for the multifunctional car grease code MPS G-414. Meets the requirements for the multifunctional grease code NATO G-414 and G-450. Meets following specifications: Service Certificate MPS nr 74/Cw-1/00, ASTM D4950: GB-LB, ZN-PTX-SP-10610.
Vecocal Grafitowany 9420	2	115	800	This grease, with a natural graphite additive is intended for the lubrication of highly loaded driving and conveyor chains, open toothed gears and low speed mechanisms. This grease is recommended to operate at temperatures ranging from –20 to 60°C. Meets the quality requirements set by the Polish Army for graphitic car grease code MPS G-9420-PL. Obtained CERTIFICATE OF ACCORDANCY with the standard documents issued by the Product Certification Department of the Army Research and Development Centre of the MPS Service. Meets following specifications: WTWT-MPS-057:1997, PN-C-96153, ZN-PTX-SP-12002.



VECO OPERATION FLUIDS

Product	Colour	Crystallization point [°C]	Boiling point [°C]	Application
INDUSTRIAL OPERATION FLUIDS				
VECO C.O. Fluid Concentrate T-20 T-10	according to customer's wish, but intensive	<-20* < -20 <-10	150 105 100	This non-freezing fluid is intended for the filling of central heating installations. It is recommended for heating installations in public places, firms, one family houses, cottages, sacred places, greenhouses and other objects where the deliberate or accidental cut-off of the central heating installation in winter time may occur. This fluid contains a specially composed set of corrosion inhibitors which guarantees ideal protection against corrosion and boiler scale both in copper-aluminium and traditional steel-cast iron installations. The product is available both in the form of a concentrate and as a liquid ready to use. Meets following specification: ZN-PTX-RX-01002.
VECO Thermofluid EG Concentrate EG 35	according to customer's wish, but intensive	< -33** < -33	130 105	This circulating fluid is intended for the filling of industrial, boiler-room, circulation systems. The liquid contains a carefully balanced composition of corrosion inhibitors, which guarantees superb anti-corrosion protection in installations built of various iron and non-ferrous metals. It is a non-freezing and non-flammable product. It does not form sediments and does not cause the layering of boiler scale. The product is available both in the form of a concentrate and as a liquid ready to use. The use of the concentrate not diluted with water is not recommended. Meets following specification: ZN-PTX-SK-02090.

*- after the concentrate's dilution with water in voluminal ratio 1:2

**- after the concentrate's dilution with water in voluminal ratio 1:1

CAR OPERATION FLUIDS				
Product	Colour	Crystallization point, [°C]	Mass density, [g/cm³]	Application
VECO Windscreen sprayers liquid Concentrate Ready to use liquid	according to customer's wish	< -20** < -20	< 0,870 < 0,950	This low-solidifying fluid is intended for the use in car windscreen and headlight sprayers. This product is available both in the form of a concentrate and as a liquid ready to use. The concentrate and liquid may be diluted by the user depending on the desired, lowest, operating temperature. Meets following specifications: WT - ITS/2/94-ZLG, ZN-PTX-RX-00099.

VECO OPERATION FLUIDS

Product	Colour	Crystallization point, [°C]	Mass density, [g/cm ³]	Application
VECO Industrial sprayers liquid	according to customer's wish	< -16	< 0,960	This low-solidifying fluid is intended for the use in car windscreen and headlight sprayers. Meets following specification: ZN-PTX-RX-00101.
VECO Płyn do spryskiwaczy na lato	according to customer's wish	< -2	< 0,950	This fluid is intended for the use in car windscreen and headlight sprayers. It is the economic version of the winter fluid recommended for the use at times when temperatures are above or only just under 0°C. Meets following specification: ZN-PTX-RX-00100.

*- after the concentrate's dilution with water in voluminal ratio 1:2

** - after the concentrate's dilution with water in voluminal ratio 1:1

Product	Colour	Boiling point [°C]	Flash point [°C]	Application
Brake fluid VECO DOT-4	żółta	230	> 120	This fluid is intended for the hydraulic brake systems filling of modern vehicles for where the use of brake fluids of the DOT-4 grade is required. It is recommended to be applied when a car operates in particularly hard conditions, with highly loaded brakes. Meets following specifications: FMVSS No. 116, WT - ITS/59/96-ZCN, ZN-PTX-RX-20020.
Brake fluid VECO DOT-3 VECO R-3/205	żółta zielona	205 205	> 115 > 105	This fluid is intended for the hydraulic brake systems filling of modern vehicles where the use of brake fluids of the R-3 type and DOT-3 grade is required. It is fully mixable with other domestic and foreign fluids of the R-3 and DOT-3 types. Meets following specifications: FMVSS No. 116, WT - ITS/59/96-ZCN, PN-75/C-40005, ZN-PTX-RX-20010.



VECO OPERATION FLUIDS

Product	Colour	Crystallization point, [°C]	Liquid's pH	Application
VECO cooling agent Concentrate Ready to use	niebieska ***	-37** -37	7,5 ÷ 11,0** 7,5 ÷ 11,0	<p>This universal, non-freezing fluid is intended for the filling of the cooling systems of combustion car engines. It is recommended for the use in systems equipped with copper and aluminium radiators. This product is available in the form of a ready to use liquid and as a concentrate. Depending on the ambient temperature, the concentrate needs to be diluted with distilled or deionised water in the following volumetric proportions:</p> <p>to -35°C: 1 part of concentrate + 1 part of water (i.e. the proportion corresponding with the commercial version of the ready to use liquid);</p> <p>to -25°C: 2 parts of concentrate + 3 parts of water;</p> <p>to -17°C: 1 part of concentrate + 2 parts of water;</p> <p>to -11°C: 1 part of concentrate + 3 parts of water.</p> <p>Meets following specifications: PN-C-40007:2000, ASTM D 3306, SAE J 1034, ZN-PTX-R-00095.</p>
VECO MXT Concentrate Cooling agent ready to use	zielony ***	-38** -38	7,5 ÷ 11,0** 7,5 ÷ 11,0	<p>This non-freezing fluid is intended for the filling of the cooling systems of combustion car engines. It is recommended for the use in systems equipped with copper and aluminium radiators. This fluid is also used for the cooling of other car components requiring fluid cooling and/or having a cooling system together with the engine. This product is particularly recommended for the use in engine cooling systems of vehicles of manufacturers as : MAN, Mercedes-Benz, Opel/General Motors, BMW, VW/Audi/Seat/Skoda, Saab, Deutz.</p> <p>Obtained approval of the company MAN for use in the engine cooling systems of MAN vehicles.</p> <p>Meets following specifications: ZN-MDX-R-00093, PN-C-40007:2000, ASTM D 3306, AFNOR NF R 15-601, BS 6580:1992, BMW – BMW N 600 69.0, Bundeswehr – TL-6850-0038/1, Deutz – H-LV 0161 0188, Mercedes-Benz – DBL 7700.20, Blatt 325.0, MTU – MTL 5048, Opel/General Motors – B 040 0240, Saab – 6901599, VW/Audi/Seat/Skoda – TL 774-C, SAE J 1034, DAF 74002.</p>

*- after the concentrate's dilution with water in voluminal ratio 1:2

**- after the concentrate's dilution with water in voluminal ratio 1:1

***- or other if wished so by customer

VARIOUS VECO PRODUCTS

Product	Kinematic viscosity at 40 °C, [mm ² /s]	Flash point, [°C]	Pour point, [°C]	Application
ELECTRO-ISOLATING OILS				
VECO Trafol TN Super	9.5	140	-40	This high quality, mineral, transformer oil is intended for the filling of transformers, measuring transformers and switching apparatus. This oil may also be used in other types of electrical apparatus where discharges with the generation of an electric arc are found. Meets following specifications: PN-90/C-96058, IEC 296.
HIGH TEMPERATURE OILS				
VECO Megosil HT 350	270	300	-	This silicone, high temperature oil is intended for the lubrication of precise equipment operating at a high temperature. It may operate in a sustained way at temperatures up to 200°C without leaving behind any sediments on the hot surfaces. It also has superb low temperature properties – it solidifies only at a temperature below -50°C. Meets following specification: ZN-PTX-OR-50000.
ANTI-FREEZE FLUIDS				
VECO WTC-96	-	12	-110	This fluid is intended for the protection of truck pneumatic brake systems against freezing at winter time. It absorbs moisture and prevents the freezing of seals, valves and chokes. This product makes the efficient working of pneumatic brakes possible even after a prolonged standstill during strong frost. It is not corrosive and does not show an adverse impact on the seals used in brake systems.
VECO Coal Anti-freeze Fluid	1,0 do 10.0	-	-36	This fluid is intended for the spraying of coal heaps in mines and combustible depots at autumn and winter time in order to prevent the sticking to each other of coal lumps and to facilitate loading operations. This product absorbs very large amounts of moisture. The formed solution has a low solidification point and guarantees effective protection against the sticking to each other of the coal lumps.
RELEASE AGENTS FOR BITUMINOUS SUBSTANCES				
Vecoformit M	38	220	-12	This oil is intended for the preparation of a water emulsion that is recommended to be used as an anti-adhesion and release agent for the coating of open load-carrying bodies, rollers wheels and other metal and rubber mechanisms that have contact with an asphalt substance.
Vecoformit Eko	34	220	-12	This biodegradable emulsifying oil is intended to be used as an anti-adhesion and release agent for the coating of open load-carrying bodies that transport bituminous materials or wooden moulds and shuttering used in the building industry and the manufacturing of precast concrete products. Due to the application of a proper set of emulsifiers, the emulsion is very durable: it does not require mixing or circulation and may be stored for more than 48 hours. Most frequently a 10% emulsion is used, but an experimental selection of the concentration according to the operating conditions is recommended.

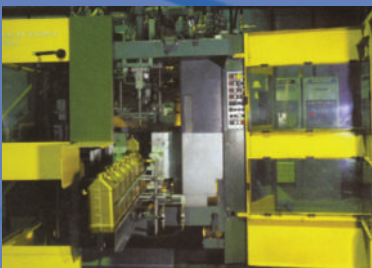
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