

Future-oriented technologies:

HIGH PERFORMANCE LUBRICANTS FOR HEAVY MACHINERY







LUBRICANTS FOR HEAVY MACHINERY

BANTLEON offers full-scope lubrication engineering support for motor vehicles and machines.

The company's portfolio also includes trendsetting technologies in the development of low-friction oils, synthetic high-tech products, as well as environmentally friendly hydraulic oils. These are complemented by extensive consulting on application optimization, environmental protection and proper disposal.

When designing high-grade lubricants, emphasis is placed on a holistic view of the interaction of machines, humans and the environment in order to secure greater performance, reliability, responsibility and operational efficiency.



CONTENT & SERVICES

Engine oils 3

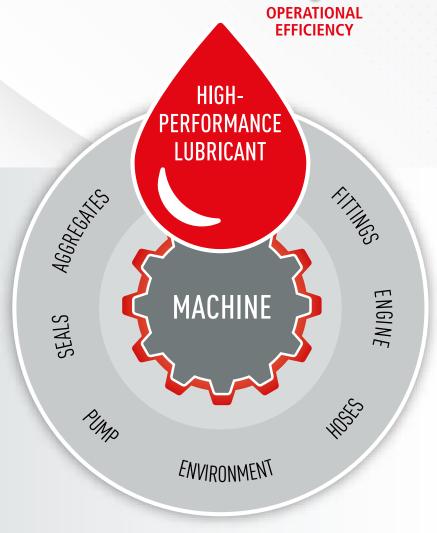
Hydraulic oils 4

Gear oils 5

Radiator protection

fluids 6

Greases 7



ENGINE OILS



High-performance BANTLEON engine oils for the requirements of today and tomorrow. We offer an extensive range of engine oils for vehicles both with and without exhaust gas after-treatment, for diesel and gasoline engines, for commercial vehicles and off-road machines, for efficient 2-stroke and 4-stroke engines, as well as for stationary engines such as gas engines, etc.

BANTLEON engine oils comply with and satisfy almost all relevant OEM and manufacturer approval processes, while also offering impressive efficiency and reliability. This is a basic prerequisite for keeping your fleet of vehicles up and running without any interruptions. Simply get in touch and we'll be happy to help you select the most suitable engine oil for your fleet.

Engine oils	Performance level	Extremely wide release range	TBN* (Total Base Number)	Low tempera- ture use	High SAPS HS Low SAPS LS
AVIA TURBOSYNTH LS PLUS 5W-30	Premium	Х	> 12	Х	LS
AVIA TURBOSYNTH LS PLUS 10W-40	Premium	Х	< 12		LS
AVIA TURBOSYNTH HT-U 5W-30	Plus		> 12	Х	HS
AVIA HEAVYLINE MEGA 10W-40	Plus		> 12		HS
AVIA HEAVYLINE LSP ULTRA 10W-40	Plus		< 12		LS
AVIA HEAVYLINE SUPER 15W-40	Standard		< 12		HS
AVIA MULTI LSP 15W-40	Standard		< 12		LS

^{*} The TBN describes the ability of an engine oil to neutralize acidic combustion products. From a value of >12, "poor fuels" such as ship and harbor diesel, etc. or diesel with high sulfur contents can also be used. Diesel fuels according to EN 590 are low in sulfur.

HYDRAULIC OILS

BANTLEON hydraulic oils for stationary and mobile equipment in trade and industry. The performance and reliability of systems and components play a key part here, coupled with operational efficiency and responsibility toward mankind and the environment.

High-performance PAO-based hydraulic fluids are trendsetting technologies in the development of of low-friction oils, synthetic high-tech products, as well as environmentally friendly hydraulic oils. These ashfree, biodegradable hydraulic oils are well suited to applications in the construction, agricultural and forestry sectors, as well as in transshipment, recycling, snow groomer and rail vehicles, sluices, weirs and sewage treatment plants.

- DEKRA-PSR tested, sustainable product quality for AVIA SYNTOFLUID PE-B / NSW in the product category of high-performance hydraulic fluids (QR code for more information).
- Our PAO fluids enable immediate operational readiness, independently of ambient temperatures, due to stable viscosity properties.
- AVIA SYNTOFLUID EAL with H1-approval for hygiene-sensitive areas such as agriculture, the food and the animal feed sector.



Hydraulic oils	Perfor- mance level	Techno- logy	DIN 51502/ DIN 51524-3	Wide tempe- rature use (high VI index)	Extended change intervals	Use in environmentally sensitive areas	Low Energy potential	H1- appro- val
AVIA SYNTOFLUID PE-B	Premium	PAO/HEPR	HVLP(D)	X	x*	DEKRA PSR	X	
AVIA SYNTOFLUID NSW	Premium	PAO/HEPR	-	x	x*	Swedish Standard SS 155434, DEKRA PSR	x	
AVIA SYNTOFLUID EAL	Premium	PAO/HEPR	HVLP	Х	х*	EU-Ecolabel	х	X
AVIA SYNTOFLUID BRO	Plus	Ester	-	Х	x**	OECD 301B		
AVIA SYNTOFLUID K	Plus	Ester	-	x		EU-Ecolabel; Blauer Engel; SS Swedish Standard SS155434; NATO		
AVIA FLUID DYNA	Plus	Mineral oil	HVLP	X			Х	
AVIA SYNTOFLUID F	Standard	Ester	-	х		EU-Ecolabel; Blauer Engel; Swedish Standard SS 155434		
AVIA FLUID HVD	Standard	Mineral oil	HVLP(D)	Х				
AVIA FLUID HVI	Standard	Mineral oil	HVLP	Х				
AVIA FLUID HLPD	Standard	Mineral oil	HLP(D)					
AVIA FLUID RSL	Standard	Mineral oil	HLP					

^{*} Factor 2-4 with accompanying analysis

^{**} Factor 2 with accompanying analysis

GEAR OILS

Whether drives or small/large gears: you'll find the right gear oil for any stationary or mobile application with us.

The recommendations for the use of our grades are based on the manufacturer's requirements. The correct grade is selected on the basis of the operating conditions, such as the gear unit type, temperature range or the environmental requirements, as well as the stipulations of the machine manufacturer.

When mineral oils reach their limits, this is where synthetic gear oils come into play. In comparison with mineral oils, they can cover a larger temperature range. This in turn leads to better start-up behavior at low temperatures, as well as constant viscosity-temperature behavior in the upper temperature range. The year-round usage made possible in this way reduces maintenance and downtimes.



Gear oils	Performance level	Technology	LS-Additive (Limited Slip)	UTTO / TDTO	Wide tempera- ture use (high VI-Index)	Extended change intervals
Axle gear						
AVIA SYNTOGEAR FE 75W-90 EP	Premium	PAO (polyalphaolefins)			х	х
AVIA HYPOID 90 LS	Plus	Mineral oil	х			
AVIA HYPOID 85W-140 EP	Standard	Mineral oil				
AVIA HYPOID 90 EP	Standard	Mineral oil				
Industrial gear						
AVIA GEAR VSG	Premium	Glycol			х	х
AVIA SYNTOGEAR PE	Premium	PAO (polyalphaolefins)			х	х
AVIA GEAR RSX-F	Plus	Mineral oil				
AVIA GEAR RSX	Standard	Mineral oil				
Tractor oil						
AVIA HYDROFLUID DLZ	Plus	Mineral oil	х	UTTO		
AVIA GEAR ALCAT	Standard	Mineral oil	х	TDTO		
Automatic transmission						
AVILUB FLUID ATZ 295	Premium	PAO (polyalphaolefins)	х		х	х
AVIA FLUID ATF 98	Plus	Mineral oil	х		Х	
AVIA FLUID ATF 86	Standard	Mineral oil	Х		x	

RADIATOR PROTECTION FLUIDS

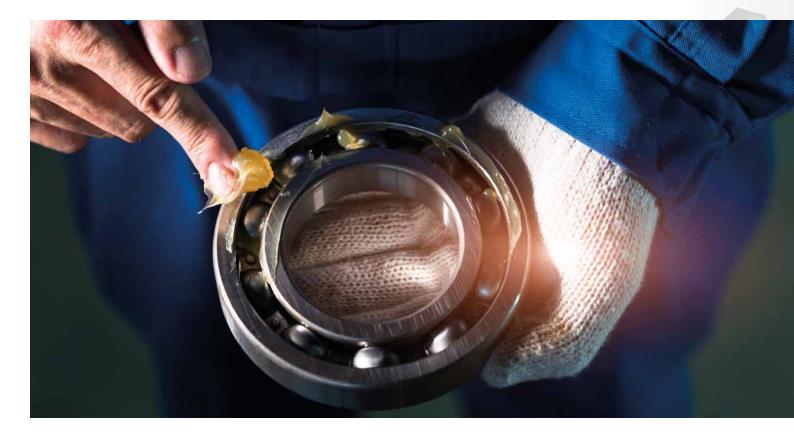


Cooling or heating systems not only rely on thermal energy being efficiently transported but also on the system being effectively protected, even at high temperatures. In fact, very special additives are used, which are tailored to the different cooling systems of the car manufacturers. Alongside effective protection from frost, cavitation and corrosion, this also prevents premature boiling and formation of deposits.

While the main objective with engines is to quickly dissipate the heat that is generated and to prevent overheating, the focus with other systems (such as heating and cooling systems) is on transporting the heat to where it is needed with as few losses as possible. BANTLEON radiator protection fluids are reliable, long-lasting and can be found in virtually all areas of application.

Radiator protection fluids	Technology	Ready-to-use mixture	Extended change intervals	
AVIA Antifreeze APN-S	Silicate free OAT		X	
AVIA Antifreeze NG	Contains silicate Si-OAT		X	
AVILUB Antifreeze NG -37°C	Contains silicate Si-OAT	X	Х	

GREASES



High loads and pressures, extreme environmental conditions and wide operating temperature ranges with long re-lubrication intervals place great performance demands on our greases.

A diverse product portfolio means that our customers can always find the right product for their respective application. Lubricating greases are design elements, particularly when they are to be used as long-term lubricants for lifetime lubrication. This is especially true of applications with extreme requirements, such as those encountered in alpine areas, the cement industry, agriculture and forestry, as well as construction, materials handling or recycling machines.

Greases	Performance level	Multipurpose character	Extreme opera- ting conditions	Extreme low temperature use	Biodegradable
AVILUB GREASE PE-POLAR	Premium	x	х	х	
AVILUB GREASE 10027	Premium	Х	x		
AVIA ALUPLEX RHS FLUID	Premium		х		
AVIA PROGREASE-LX 2 HT	Premium	Х	х		
AVILUB SPEZIALFETT LDW	Plus	Х	х		
AVIA SYNTOGREASE 2	Plus	Х			X
AVIA PROGREASE-L 2 EP	Standard	Х			
AVILUB LDS SPRUEHFETT	Standard	Х			
Pasten					
AVIA Meisselpaste	Standard				

