



SynGear

Bardahl Fully Synthetic Industrial Gear Oil

DESCRIPTION

Bardahl SynGear oils are synthetic gear and bearing lubricants, designed for use under the most severe conditions such as extremely high or low temperatures. These products resulted from a balanced combination of highly effective extreme-pressure additive technology and extremely stable synthetic fluids such as PAOs (polyalphaolefins).

Compared to conventional mineral based products, SynGear lubricants offer exceptionally low pour points and high viscosity indexes. They exhibit greater film thickness at elevated temperatures and lower viscosities at low temperatures. These oils have a lower coefficient of friction than conventional industrial gear oils. This means lower operating temperatures that help to extend component life and reduce energy consumption. The unique additive system ensures reliable gear protection in boundary lubrication regime and guard against failures during heavy loading even under seawater or acidic environment, and consistently shows good demulsibility and low foaming tendency.

Bardahl SynGear lubricants are normally available from ISO 150 to ISO 680 grades. Other viscosity grades are also possible on demand. They are supreme industrial gear oils, suitable for a wide range of applications. These products are compatible with all commonly used elastomers, gaskets, seals such as nitrile, Viton®, Teflon® and PVC.

PERFORMANCE STANDARDS

- DIN 51 517 Part 3 (CLP)
- AGMA 9005-E02 (replacement for 250.04)
- US Steel 224
- David Brown S1.53.101
- ISO-12925-1 Type CKD

FEATURES

- Excellent thermal/oxidation stability, giving long oil service life and extended drain capability
- Outstanding wear protection including resistance against micro-pitting for longer equipment life
- Superior deposit control – cleaner gear system
- Reduce galling, scuffing and welding of gear teeth due to excellent load-carrying capacity
- Rapid water separation
- Superior foam control in service
- Low traction provides improved gear efficiency and lower operating cost
- Excellent compatibility with all common gear box materials and mineral-based gear oils
- Exceptional adaptability to a wide range of operating temperatures

APPLICATIONS

- Recommended for use in severe service enclosed gear sets in many industrial applications, particularly in seal for life systems, heavily loaded plain or roller element bearings
- These oils can also be used for sliding surfaces, chain drives and flexible couplings employing splash or circulation lubrication systems and requiring an EP type oil
- Plastic extruder gearboxes, highly loaded gearboxes in the paper, steel, oil, textile, lumber and cement industries
- Virtually any gear sets operating under severe conditions of heavy or shock loads and slow speed where boundary lubrication may prevail

TYPICAL PROPERTIES

ISO Grade	150	220	320	460	680
AGMA No.	4EP	5EP	6EP	7EP	8EP
Density, kg/litre @ 15°C	0.855	0.857	0.861	0.862	0.867
Kinematic Viscosity, mm ² /s @ 40°C	143.0	215.0	325.0	442.0	660.0
Kinematic Viscosity, mm ² /s @ 100°C	18.5	25.5	36.2	47.9	61.9
Viscosity Index	145	150	158	168	163
Pour Point, °C	-48	-42	-39	-36	-33
Flash Point COC, °C	228	235	240	242	238
Rust Prevention	Pass	Pass	Pass	Pass	Pass
Copper Corrosion	1b	1b	1b	1b	1b
Emulsion Characteristics, (time to 40-40-0), minutes	10	10	10	10	15

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