



Product Data

Castrol Alpha[®] SP Range

Industrial Extreme Pressure Gear Oil

Description

Castrol Alpha SP Range are formulated with premium solvent-refined, base oils fortified with sulfur-phosphorus. Compounds to impact anti-wear & extreme pressure properties. The combination of base oils and additives is designed to meet all industrial gear oil applications. Alpha SP Range meet AGMA, U.S. Steel and other industrial gear lubricant specifications.

Application

Alpha SP Range are designed for use in all industrial lubricant applications where SP Range are specified by the equipment manufacturers or called for by system requirements. For application while operating or ambient temperatures are higher than normal, please consult your account manager regarding various product operations.

- Alpha SP Range of gear oils are intended for use in all types of enclosed gears with circulation or splash lubrication systems.
- Large and small spur bevel, spiral, helical, herringbone.
- Application where gears and bearings are subject to shock loads.
- Oil mist-lubricated gears and bearings

Advantages

- Excellent load carrying capacity - prevents premature wear of gear surfaces under rigorous operating loads.
- Highly resistant to oxidation - prevents sludging and varnishing, thus providing long service life.
- Excellent corrosion resistance - protects internal surfaces from entrained air and moisture-induced corrosion.
- Highly foam resistant - inhibited to prevent foam under the most rigorous operating loads.
- Increased lubricity/wear protection - the sulfur/phosphorous anti-wear package promotes wear protection and increased lubricity, thereby reducing gear case bulk oil temperatures.

Characteristics

Test Results	Alpha SP 68	Alpha SP 100	Alpha SP 150	Alpha SP 220	Alpha SP 320	Alpha SP 460	Alpha SP 680
AGMA Grade	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
ISO Viscosity Grade	68	100	150	220	320	460	680
Kinematic Viscosity, ASTM D-445, @ 40°C, mm ² /sec @ 100°C, mm ² /sec	65.8 8.7	97.8 11.1	159.3 15.3	220 19.4	320 25.3	460 31.3	672.6 36.4
Viscosity Index, ASTM D-2250	98	98	98	96	96	96	95
Flash Point, ASTM D-92, °C / °F	215/420	219/427	223/435	225 / 438	226 / 440	225 / 438	229/445
Specific Gravity @ 15°C/ 60°F, ASTM D-1298	0.88	0.88	0.89	0.89	0.90	0.90	0.91
Timken OK Load, ASTM D-2670, lb/kgf	65	65	75	75	75	75	75
Pour Point, °F / °C	-27°C -17°F	-25°C -14°F	-18°C -2°F	-18°C -2°F	-15°C +5°F	-15°C +5°F	-12°C +11°F
FZG, Failure Stage	12	12	12	12	12	12	12
Rust, ASTM D-665, A & B	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Copper Strip Corrosion, ASTM D-130	1b	1b	1b	1b	1b	1b	1b
Demulsibility, ASTM D-1401, 15 minutes	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0
Foam, ASTM D-892 Sequence I	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Sequence II	10/0	10/0	10/0	10/0	10/0	10/0	10/0
Sequence III	0/0	0/0	0/0	0/0	0/0	0/0	0/0

Additional Information

Alpha SP Range are compatible with all oil-resistant seals and metals. These oils can be added to competitive products. However, for optimum performance drain the reservoirs completely and refill with the OEM recommended viscosity grade. Longer gear life can be promoted by maintaining the full level specified on the gear case and by changing the oil as required by operating or ambient conditions.

Castrol Alpha SP Range
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