



Product Data

Castrol Alpha® SP Range

Gear oil

DESCRIPTION

The Castrol Alpha SP gear oil range of high quality lubricants are based upon highly refined mineral oil, enhanced with an advanced extreme pressure additive technology providing outstanding thermal stability and high load carrying capacity.

The advanced extreme pressure additive system not only provides high load carrying capacity, but was specifically designed to provide microscopic wear protection. Microscopic wear protection, also known as micropitting protection, is critical in preventing destructive wear at the micro level therefore extending gear life and meeting the evolving demands of smaller and higher output gear boxes.

APPLICATION

The Alpha SP range are recommended for the lubrication of industrial gear boxes using forced circulation or splash and oil bath lubrication. They may be used for the lubrication of spur and helical gears and in some lightly loaded worm type gear applications.

They have very good viscosity characteristics to ensure that starting torques are not excessively high in cold operating conditions. The additives are compatible with the ferrous and non-ferrous metals used in industrial gear units.

The Alpha SP range is fully compatible with nitrile, silicone and fluropolymer seal materials.

Alpha SP is classified as follows:

- DIN Classification is CLP Alpha SP range meet the requirements of:
- DIN 51517 Part 3
- AGMA 9005 - D94
- US Steel 224
- David Brown Type E
- Hansen Transmissions
- Flender
- Suitable for Müller Weingarten equipment

ADVANTAGES

- 'Clean gear' additive technology ensures low deposit formation and enhanced filter life.
- Full Extreme Pressure (EP) performance* gives maximum protection of gears against wear and shock-loading.
- Good water separation and demulsification characteristics means reduced down time through prolonged lubricant life and increased equipment reliability.
- High protection against corrosion and wear resulting in less maintenance.

* ISO 220 grade achieved FZG >14 rating under a16.6./90 (double speed) test conditions.

CHARACTERISTICS

Test	Method	Units	SP 68	SP 100	SP 150	SP 220	SP 320	SP 460	SP 680
AGMA No.	-	-	2EP	3EP	4EP	5EP	6EP	7EP	8EP
ISO Viscosity Grade	-	-	68	100	150	220	320	460	680
Density @ 15°C	ISO 12185/ ASTM D4052	g/ml	0.88	0.89	0.89	0.89	0.90	0.90	0.92
K.V. @ 40°C	ISO 3104/ ASTM D445	mm ² /s	68	100	150	220	320	460	680
K.V. @ 100°C	ISO 3104/ ASTM D445	mm ² /s	8.53	11.1	14.5	18.7	24	30.5	37.3
Viscosity Index	ISO 2909/ ASTM 2270	-	> 95	> 95	> 95	>95	> 95	> 95	85
Pour Point	ISO 3016/ ASTM D97	°C/°F	-21/-6	-21/-6	-18/-0.4	-18/-0.4	-15/5	-12/10	-9/16
Flash Point, COC	ISO 2592/ ASTM D92	°C/°F	215/420	219/427	223/435	225/438	226/440	225/438	229/445
Foam Seq I	ISO 6247/ ASTM D892	mls/mls	10/0	10/0	10/0	10/0	10/0	10/0	10/0
Copper Corrosion (3 hrs @ 100°C)	ISO 2160/ ASTM D130	-	1b	1b	1b	1b	1b	1b	1b
Rust Test (24 hrs Synthetic sea water)	ISO / 7210/ ASTM D665B	-	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Timken OK Load	ASTM D2782/ IP 240	lbs	-	-	-	70	70	70	70
FZG fail stage (A8.3/90)	ISO 14635-1/ DIN 51354	-	> 12	> 12	> 12	> 12	> 12	> 12	> 12

Subject to Usual Manufacturing Tolerances.

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