

Alpha SP

Gear Oil

Description

The Castrol Alpha™ SP gear oil range of high quality lubricants are based upon highly refined mineral oil, enhanced with an extreme pressure additive technology providing good thermal stability and high load carrying capacity. The extreme pressure additive system not only provides high load carrying capacity, but was 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.

Applications

The Alpha SP range is 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 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 compatible with the most common types of seal materials.

Product Performance Claims

Specific grades within the Alpha SP range meet the requirements of:

- DIN 51517 Part 3
- AGMA 9005 - E02
- AIST 224
- David Brown S1.53.101 Type E
- SIEMENS MD Rev 13 for Flender Gear Units (ISO VG 150 - 680)

Alpha SP is classified as follows: DIN Classification is CLP

Advantages

- Extreme Pressure (EP) performance protect gears against wear and shock-loading as measured by FZG performance and demonstrated extensively in the field.
- Alpha SP 'Clean gear' additive technology provides low deposit formation.
- Good water separation and demulsification.
- High protection against corrosion and wear.

Typical Characteristics

	Method	Units	68	100	150	220	320	460	680
AGMA No.			2EP	3EP	4EP	5EP	6EP	7EP	8EP
Density @ 15°C	ASTM D4052	g/ml	0.88	0.89	0.89	0.89	0.90	0.90	0.92
K.V. @ 40°C	ASTM D445	cSt	68	100	150	220	320	447.2	673.9
K.V. @ 100°C	ASTM D445	cSt	8.53	11.1	14.5	18.7	24.6	30.5	37.3
Viscosity Index	ASTM 2270	-	>95	> 95	> 95	>95	> 95	> 95	>80
Pour Point	ASTM D97	°C	-21	-21	-15	-18	-15	-9	-9
Flash Point, PMC	ASTM D93	°C	192	196	198	198	198	200	198
Foam Seq I	ASTM D892	mls/mls	10/0	10/0	10/0	10/0	10/0	0/0	0/0
Copper Corrosion (3 hrs @ 100°C)	ASTM D130	-	1b	1b	1b	1b	1b	1b	1b
Rust Test (24 hrs Synthetic sea water)	ASTM D665B	-	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Timken OK Load	ASTM D2782	lbs	-	-	-	-	-	-	-
FZG fail stage (A8.3/90)	DIN 51354	-	>12	> 12	> 12	> 12	> 12	> 12	> 12

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings.

Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

Castrol Alpha SP

12 Feb 2018

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