Alpha CLP

Industrial Gear Oil Range

Description

The Castrol Alpha™ CLP range fulfils the requirements of DIN 51517-3 for CLP type gear oils and other key industrial specifications as listed below. The Alpha CLP range offer good wear protection, safety against scuffing, aging resistance and a high thermal endurance. In addition, the products behave neutral towards conventional seals and bearing metals.

Application

The Castrol Alpha CLP range offers good gear performance for most types of Industrial gears.

Alpha CLP is formulated to meet the requirements of the following key Industrial specifications:-
- AGMA 9005-F16 Antiscuff
- David Brown S1.53.101 E
- DIN 51517 Part III
- ISO 12925-1 (CKD) - 2002
- Key Requirements of Chinese Specification GB5903-2011 (CKC)
- Japanese National Specification JIS K 2219:2006 (Class 2)

Advantages
- Meets industry specifications.
- Good wear protection, safety against scuffing, aging resistance and a high thermal endurance.
- Good neutrality towards conventional seals and bearing metals.

Typical Characteristics

Test	Method	Units	CLP 68	CLP 150	CLP 220	CLP 320	CLP 460	CLP 680
Appearance	Visual	-	Clear& Bright	Clear& Bright	Clear& Bright	Clear& Bright	Clear& Bright	Clear& Bright
Density @ 15°C / 59°F	DIN 51757 / ISO 12185 / ASTM D4052	kg/m³	889	891	892	895	898	910
Kinematic Viscosity @40°C/104°F	(DIN EN) ISO 3104 / ASTM D445	mm²/s	68	150	220	320	460	680
Kinematic Viscosity @100°C/212°F	(DIN EN) ISO 3104 / ASTM D445	mm²/s	8.5	14.7	18.8	24.4	29.5	36.7
Viscosity Index	(DIN) ISO 2909 / ASTM D2270	-	92	96	95	97	91	88
Pour Point	(DIN) ISO 3016 / ASTM D97	°C/°F	-24/-11	-18/-0.4	<-9/<-16	<-9/<-16	<-9/<-16	<-9/<-16
Flash Point - open cup method	(DIN EN) ISO 2592 / ASTM D92	°C/°F	215/419	232/450	232/450	232/450	232/450	232/450
Rust test - synthetic seawater (24 hrs)	(DIN) ISO 7120 / ASTM D665B	Rating	Pass	Pass	Pass	Pass	Pass	Pass
Copper corrosion (3 hrs @100°C/ 212°F)	(DIN EN) ISO 2160 / ASTM D130	Rating	1	1	1	1	1	1
Water Separation @ 54°C / 129°F (40/37/3)	(DIN) ISO 6614 / ASTM D1401	minutes	10	-	-	-	-	-
Water Separation @ 82°C / 180°F (40/37/3)	(DIN) ISO 6614 / ASTM D1401	minutes	-	15	15	20	20	-
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0	0/0	0/0	0/0
FZG Gear Scuffing Test A/8.3/90	(DIN) ISO 14635-1	Failure Load Stage	>=12	>=12	>14	>14	>14	>14
FE-8 Bearing Wear test (F.562831.01-7.5/80-80)	DIN 51819-3	Roller wear (Mw50), mg	-	-	8	8	8	-
Oxidation Stability - EP oils (95°C@312 hrs). Viscosity @100°C/212°F increase	(DIN EN) ISO 4263-4 / ASTM D2893	%	-	-	4	4	4	-
Elastomer Compatibility, SRE-NBR 28/SX	(DIN) ISO 1817	Vol %	-	-	3.8	-	-	-
Brugger test	DIN 51347	N/mm²	-	-	46	-	-	-

Subject to usual manufacturing tolerances.