



## 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)

## Typical Characteristics

Name	Method	Units	CLP 220	CLP 320	CLP 460
Appearance	Visual	-	Clear&Bright	Clear&Bright	Clear&Bright
Density @ 15°C / 59°F	DIN 51757 / ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	892	895	898
Kinematic Viscosity @40°C/104°F	(DIN EN) ISO 3104 / ASTM D445	mm <sup>2</sup> /s	220	320	460
Kinematic Viscosity @100°C/212°F	(DIN EN) ISO 3104 / ASTM D445	mm <sup>2</sup> /s	18.8	24.4	30.5
Viscosity Index	(DIN) ISO 2909 / ASTM D2270	-	93	91	91
Pour Point	(DIN) ISO 3016 / ASTM D97	°C/°F	<-9/<-16	<-9/<-16	<-9/<-16
Flash Point - open cup method	(DIN EN) ISO 2592 / ASTM D92	°C/°F	256/493	288/550	300/572
Rust test - synthetic seawater (24 hrs)	(DIN) ISO 7120 / ASTM D665B	Rating	Pass	Pass	Pass
Copper corrosion (3 hrs @100°C/ 212°F)	(DIN EN) ISO 2160 / ASTM D130	Rating	1	1	1
Water Separation @ 82°C / 180°F (40/ 37/3)	(DIN) ISO 6614 / ASTM D1401	minutes	11	20	20
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0
FZG Gear Scuffing Test A/8.3/90	(DIN) ISO 14635-1	Failure Load Stage	>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/mm <sup>2</sup>	46	-	-

Subject to usual manufacturing tolerances.

Alpha CLP  
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