



Performance™ Bio GE 220 ESU

Gear oil type CLP E

Description

Castrol Performance™ Bio GE 220 ESU (previously called Carelube™ GES 220) is formulated as a circulating, bearing and gear oil based on synthetic esters, that fulfill the performance requirements of DIN 51517-3.

This product contains additives that provide protection against ageing, corrosion and wearing, as well as EP active substances.

Performance Bio GE 220 ESU biodegradability, makes it much more compatible to the environment than conventional gear oils based on mineral oil.

The "Specifications of biodegradability according to CEC L-33-T 82" yielded a value of 91% after 21 days in testing laboratories.

Performance Bio GE 220 ESU gear oil, fulfills the micro-pitting test required by the Flender company in accordance with FVA Nr.54.

Typical Characteristics

Name	Method	Units	Bio GE 220 ESU
Colour	Visual	-	Light Yellow
Density @ 15°C / 59°F	ASTM D4052 / ISO 12185	kg/m³	935
Kinematic Viscosity @ 40°C / 104°F	ASTM D 445 / ISO 3104	mm²/s	220
Kinematic Viscosity @ 100°C / 212°F	ASTM D 445 / ISO 3104	mm²/s	30
Viscosity Index	ASTM D2270 / ISO 2909	-	180
Pour Point	ASTM D97 / ISO 3016	°C/°F	-39
Flash Point - open cup method	ASTM D92 / ISO 2592	°C/°F	300
Neutralisation Number	DIN 51558-1		1.4
Rust test (24 h, distilled water)	ISO 7120	Rating	0 - A
Corrosiveness on copper	ISO 2160	Rating	1 - 100 A 3
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	SKS	>12
Timken - test - Load / Wear	DIN 51434-3	lbs. / mg	80 / <4,0
Micro pitting resistance Stage test	FVA Nr. 54	SKS	10
Water separation @ 82°C/ 180°F	ISO 6614	min	30

Subject to usual manufacturing tolerances.

This product was previous called Carelube GES 220. The name was changed in 2015.

Performance™ Bio GE 220 ESU

24 Feb 2015

Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

www.castrol.com/industrial