

DESCRIPTION

High performance EAL for enclosed gears.

APPLICATIONS

- **CARTER BIO** is a new generation high performance EAL lubricant developed for gear and bearing lubrication.
- **CARTER BIO** is designed to replace mineral gear oils for gearboxes operating in environmentally sensitive areas.

PROPERTIES

- **CARTER BIO** has very good extreme pressure properties as premium mineral gear oil and a high scuffing load capacity ensuring good protection of gears operating under high load.
- The synthetic base oils used combine good lubrication properties and a high oxidation stability. These base oils comply with the European Ecolabel criteria for biodegradability, renewable carbon content and for ecotoxicity.
- **CARTER BIO** ensures high corrosion protection, even with sea water contamination, and provides lubrication advantages at both high and low temperatures compared to mineral oils.

SPECIFICATIONS

CARTER BIO can be used when CKC/CKD (ISO 12925-1) or CLP (DIN 51517-3) mineral lubricant performance levels are requested.

Environmentally Acceptable Lubricant (EAL) for 2013 (VGP).

APPROVALS

ZF PROPULSION, WÄRTSILÄ, HHI thrusters, SCANA.

CHARACTERISTICS

CHARACTERISTICS	METHODS	UNITS	CARTER BIO				
			68	100	150	220	320
ISO Grade			68	100	150	220	320
Density at 15 °C	ISO 3675	kg/m ³	951	968	960	960	964
Kinematic viscosity at 40 °C	ISO 3104	mm ² /s	68	100	150	220	320
Kinematic viscosity at 100 °C	ISO 3104	mm ² /s	10	14	22	29	38
Viscosity index	ISO 2909	-	147	142	144	150	139
Flash Point (COC)	ASTM D 92	°C	240	240	240	240	250
Pour Point	ISO 3016	°C	- 42	- 42	- 30	-27	- 24
FZG failure stage, DIN 51 354/2	DIN 51 354/2	-	> 13	> 13	> 13	> 13	> 13
Foaming, ISO 6614	ISO 6614	ml/ml	0/0	0/0	0/0	0/0	0/0

Characteristics of this chart are indicative typical values

HANDLING, HEALTH AND SAFETY

Lubricants consisting of synthetic oils with specific additives.

In normal conditions of use, these lubricants present no particular toxic hazard.

All lubricants, of any kind, should always be handled with great care, particularly avoiding any contact with the skin.

Prevent any risk of splashing, and keep away from combustible materials.

Store under cover and away from any risk of contamination.

A safety data sheet complying with current legislation is available on [www. quickfds.com](http://www.quickfds.com) or www.lubmarine.com.

The values shown above are typical values at the date of publication. TOTAL Lubmarine reserves the right to change these typical values without prior notice.



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