



Hypogear

Extreme-Pressure Automotive Transmission Oils

Product Data

Description

Hypogear lubricants are designed for use in linear or off-set hypoid, bevel and spiral gear units in transmissions, axles and final drives working under severe high speed/low speed/high torque conditions.

Extreme pressure additives enable these grades to maintain effective lubrication in severe automotive conditions of high tooth load and sliding pressure. Selected viscosity characteristics permit these multi-purpose lubricants to perform effectively over a wide range of operating temperatures.

For synchronised manual gearboxes, this range should be used only if lubricants of API GL-5 performance level are explicitly recommended by the vehicle manufacturer.

They are available in viscosity grades SAE 80W-90 and 85W-140.

Benefits

- Superior viscosity characteristics offering cold flow properties and enhanced thermal stability.
- Excellent resistance to foaming and corrosion.
- Extreme pressure performance to minimise scuffing, welding or galling tooth-wear in severe load applications.
- Multi-purpose lubricants which meet the requirements of many automotive manufacturers.
- Ideal rationalisation grades for mixed fleets.
- Compatible with conventional automotive seal materials used with mineral oils.

Specifications

Hypogear 80W-90 and 85W-140 grades meet or exceed the requirements of:

- API Lubricant Service Designation API GL-5.
- US Military MIL-L-2105D
- US Military MIL-PRF-2105E.
- Defence Standard OEP-220 (80W-90), OEP-600 (85W-140).
- API MT-1.
- Numerous vehicle manufacturers such as Kenworth, Western Star, Iveco, MAN, Scania, Mack (approved Mack GO-H) and Volvo for heavy vehicles' rear axles and final drive units.



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.

Health & Safety Recommendations

Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet, which can be obtained by contacting the BP Lubricants and Fuels Technical Helpline on 1300 139 700, BP Australia or its subsidiaries. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. BP Australia will not accept liability if the product is used other than in the manner or with the precautions or for the purpose/s specified. Before the product is used other than as directed, advice should be obtained from the local BP office or BP Lubricants and Fuels Technical Helpline 1300 139 700.

Typical characteristics

	Test Method	Units	80W-90	85W-140
Density @ 15°C	ASTM D1298	kg/L	0.902	0.912
Flash Point (PMC)	ASTM D93	°C	174	174
Kinematic Viscosity				
@ 40°C	ASTM D445	CSt	135	337
@100°C	ASTM D445	CSt	14.0	25.0
Brookfield Viscosity				
@ -12°C	ASTM D2983	mPa.s	-	150 000 max
@ -26°C	ASTM D2983	mPa.s	150 000 max	-
Viscosity Index	ASTM D2270	-	100	96
Pour Point	ASTM D97	°C	-30	-18

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

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