Geartex® EP-A

Efficient performance automotive gear lubricants

Product description

Geartex EP-A are efficient performance automotive gear lubricants suitable for API GL-4 applications. They are formulated with mineral base oils and selected additives to resist wear, corrosion and oxidation.

Geartex EP-A is available in SAE 80W, 80W-90 and 85W-90 viscosity grades.

Customer benefits

- Shear stability ensures viscosity is retained throughout fluid lifetime
- Low temperature fluidity protects gear system during cold start-up
- EP protection resists gear scuffing and wear
- Oxidation stability prevents oil thickening and maximises protection
- Compatibility with a wide range of elastomers prevents hose and seal deterioration
- Protects against rust and corrosion
- Good foam suppression

Applications

- Geartex EP-A is designed for use in automotive transmissions, transaxles, steering systems and hypoid drive axles which require a fluid with API GL-4 performance (equivalent to US Military specification MIL-L-2105). The friction characteristics of the Geartex EP-A range make them suitable for use in synchronised manual transmissions
- Operating temperatures of above +100°C will lead to a significant reduction in the fluid service life. Peak operating temperatures should not exceed +120°C

Product highlights

- **Highly shear stable**
- **EP wear resistance**
- **Cold start protection**

Selected specification standards include:

API GL-4	Daimler
MAN	ZF
ZF Lenksysteme	

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Approvals, performance and recommendations

Viscosity Grade		**80W**	**80W-90**	**85W-90**
API	GL-4	Meets requirements	Meets requirements	Meets requirements
Daimler	MB 235.1	Approved	Suitable for application	Approved
MAN	341 Type E1	Approved	Suitable for application	Suitable for application
MAN	341 Type Z1	Approved	Suitable for application	Suitable for application
ZF	TE-ML 02A	Approved	Approved	Suitable for application
ZF Lenksysteme	TE-ML 08	Approved [1]	Approved [1]	—
ZF	TE-ML 16A	—	Approved	Approved
ZF	TE-ML 17A	Approved	Approved	Approved
ZF	TE-ML 19A	—	Approved	Approved

[1] Products meeting the necessary requirements for this specification are approved without listing.

Typical test data

Test	**Test methods**	**Results**		
Viscosity Grade		**80W**	**80W-90**	**85W-90**
Product Code		**01950.1**	**30710.1**	**01951.1**
Viscosity Kinematic, 40°C, mm^2/s	ASTM D445	82	135	178
Viscosity Kinematic, 100°C, mm^2/s	ASTM D445	9.5	14.0	16.5
Viscosity Brookfield, -12°C, mPa.s	ASTM D2983	-	-	18,000
Viscosity Brookfield, -26°C, mPa.s	ASTM D2983	70,000	130,000	-
Viscosity Index	ASTM D2270	100	101	100
Density, 15°C, kg/l	ASTM D1298	0.889	0.894	0.895
Flash Point COC, °C	ASTM D92	220	220	230
Pour Point, °C	ASTM D97	-36	-30	-24
Copper Corrosion, 3 hr, 121°C	ASTM D130	2a	2a	2a
FZG Gear Wear Test A/8.3/90				
- Failure load stage	CEC L7A95	12+	12+	12+

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.