TEXOL
Chemical

Technical Data Sheet

Texol Multisyn™ ATF Type F

Advanced performance heavy duty synthetic automatic transmission fluid

Product Description

Texol Multisyn™ ATF Type F is an advanced performance heavy duty synthetic automatic transmission fluid formulated use in automatic transmission requiring ZF TE-ML 09, 14A,14B,14C systems.

Customer benefits

- High viscosity index (VI) promotes viscosity retention, helping maintain system protection at critical high operating temperatures
- Low temperature fluidity assists rapid lubrication and wear protection during low temperature start-up
- Anti-wear additives help provide protection to highly loaded automatic transmissions, compressors and hydraulic pumps
- Oxidation stability promotes resistance against harmful sludge, lacquer and deposit formation
- Help provide critical protection against rust, corrosion and system damage
- Compatible with a wide range of elastomers, aiding fluid loss prevention through seal leakage
- Protect automatic transmission fluid coolers from corrosion
- Extreme pressure (EP) protection and TFAS additives package promotes resistance to component scuffing and wear, helping reduce maintenance

Applications and Uses

- Texol Multisyn™ ATF Type F is designed for long drain in heavy duty synchronised automatic truck transmission, including automated models (such as ZF Ecomat transmission). Texol Multisyn™ ATF Type F is suitable for use in transmissions fitted with retarders or intarders

- Texol Multisyn™ ATF Type F may also be used as a wide temperature range anti-wear hydraulic fluid for mobile, industrial and marine applications.

- ZF has recently started using a new type of synchroniser component in some of its truck and bus transmissions. These transmissions are indicated by a " TE-ML 09, 14A, 14B, 14C " entry on the name plate. Texol Multisyn™ Type F may also be used for these applications.

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Typical Properties

Property (Unit)	ATF TYPE F	Method
Density at +15 °C	880	ASTM D4053
Viscosity @40°C, cSt	34.8	ASTM D445
Viscosity @100°C, cSt	7.4	ASTM D445
Viscosity Brookfield, -10°C, mPa.s	420	ASTM D2983
Viscosity Brookfield, -20°C, mPa.s	1100	ASTM D2983
Viscosity Brookfield, -30°C, mPa.s	3800	ASTM D2983
Viscosity Brookfield, -40°C, mPa.s	17500	ASTM D2983
Viscosity Index	191	ASTM D2270
Colour	<3	ASTM D1500
Flash Point, °C	210	ASTM D92
Pour Point, °C	-51	ASTM D97
Copper Corrosion, 3h, 150°C	1b	ASTM D130
Noack Volatility, 1h, 250°C, %wt	7.4	CEC L40A93
FZG Gear Wear Test, Failure load stage	>12	CEC L7A95

Specifications

- MAN 339 Type Z3 (ZF Ecomat transmission)
- MB 236.91
- ZF TE-ML 09 / 14A / 14B / 14C
- Allison TES-295
- Voith H55.6335.xx
- Aisin Warner JWS 3309 / JWS 3324
- Honda ATF-Z1
- Hyundai/Kia/Mitsubishi Diamond SP-III
- JASO M315 Type 1-A
- Mazda ATF M5
- Nissan MATIC-J
- Toyota Type T-IV / WS
- Subaru ATF-HP
- Volvo 97342 (AT 102)