



LUBRICANT, SYNTHETIC POLYOL ESTER

ESE-M99C115-A

1. SCOPE

This material specification defines the minimum acceptable performance requirements and physical/chemical properties of a polyol ester based synthetic fluid with good oxidation stability.

2. APPLICATION

This specification was released originally for material used to lubricate supercharger assemblies.

3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2	VISCOSITY at 100 °C (ASTM D 445 or ISO 3104)	8.6 - 9.6 mm ² /s
3.3	VISCOSITY at -35 °C, max (ASTM D 445 or ISO 3104)	25,000 mm ² /s
3.4	DENSITY at 25 °C, min (ASTM D 1217)	0.90
3.5	FLASH POINT, min (ASTM D 92 or ISO 2592)	260 °C
3.6	POUR POINT, max (ASTM D 97 or ISO 3016)	-40 °C
3.7	EVAPORATION LOSS, max (ASTM D 972, 24 h at 100 °C)	1%
3.8	TOTAL ACID NUMBER, max (ASTM D 974)	1 mg KOH/g

Date	Action	Revisions
2004 01 29	Revised	Para 3.0 inserted; paras 3.1, 3.11, 4 deleted
1989 01 04	Released	NE01E10000474035



3.9 CORROSIVENESS AND OXIDATION STABILITY (FTM 791b, Method 5308, 72 h at 175 °C)

Change in Viscosity at 40 °C (ASTM D 445), max	10%
Change in Neutralization Number, max	1 mg KOH/g
Evaporation Loss, max	2%
Change in Weight of Metals, mg/cm ² , max	
Aluminum	0.6
Brass	0.6
Bronze	0.6
Copper	0.6
Nickel	0.2
Steel	0.2

3.10 WEAR PREVENTIVE CHARACTERISTICS, FOUR-BALL METHOD (ASTM D 2266, 600 rpm and 25 °C)

Wear Scar Diameter, max	1 mm
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