



LUBRICANT, GEAR, SYNTHETIC BASE

WSD-M2C200-C2

1. SCOPE

The material defined by this specification is a multiviscosity transmission lubricant using synthetic base fluids compounded with viscosity index improvers and extreme pressure additives.

2. APPLICATION

This specification was released originally for material used to provide lubrication for manual transaxles and transmissions. The material has specific frictional characteristics for this application

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

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).

3.3 VISCOSITY

3.3.1 At 100 °C (ISO 3104) Rate and Report

3.3.2 At - 26 °C, max (ASTM D 2983) 8,000 mPa.s

3.3.3 At -40 °C, max (ASTM D 2983) 50,000 mPa.s

3.3.4 Shear Stability (CEC L45-T 93 °C, min viscosity) 11.5 mm²/s

Used bearing shear loss after run in period with Reference Oil RL 181/3 9 to 13%

3.3.5 Viscosity Index, min (ISO 2909) 150

3.4 POUR POINT, max (ISO 3016) -42 °C

3.5 FLASH POINT, min (ISO 2592) 210 °C

Date	Action	Revisions
2004 08 31	Revised	Para 3.0 inserted; para 3.20 & 4 deleted
2001 05 22	Activated	



Documents

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**3.6 COPPER CORROSION**
(ISO 2160)

3 h at room temperature, max
3 h at 120 +/- 2 °C, max

1a
1b

3.7 ANTI FOAMING PROPERTIES
(ASTM D 892)

Foam Tendency
at end of 5 min
blowing period

Foam Stability
at end of 1 min
settling period

Sequence 1, max
Sequence 2, max
Sequence 3, max
Sequence 4, max

10 mL
10 mL
10 mL
10 mL

0 mL
0 mL
0 mL
0 mL

(Sequence 4 to consist of 150 +/- 3 °C, 200 mL/minute air)

3.8 FOAMING AFTER AGEING
(ASTM D 892) (CEC-L-48-A-95)
140 °C, 10 L air/Hour, 24 Hours

Foam Tendency
at end of 5 min
blowing period

Foam Stability
at end of 20 sec
settling period

Sequence 1, max
Sequence 2, max
Sequence 3, max

10 mL
20 mL
10 mL

10 mL
10 mL
10 mL

3.9 MOISTURE, max
(ISO 3733)

0.1%

3.10 ODOR

Materials shall produce no objectionable odour during any test performed herein.

3.11 RUBBER COMPATIBILITY
(ASTM D 471, para. 6.1,
with aluminium block 168
hours at 150 +/- 3 °C

Material 70 ACM 121433

Volume change from original
Durometer hardness change from original

+5 +/- 3%
+3 / -6

Material 75 FKM 595

Volume change from original
Durometer hardness change from original

+3 +/- 3%
0 / +6

3.12 OXIDATION TEST
(CEC L-48-A-95/B)

Blotter spot test, min
Viscosity increase at 100 °C, max
Change in TAN (ASTM D 664, max)
Sludge

100
15%
2 mgKOH/g
Not permitted