



LUBRICANT, POLYALKYLENE GLYCOL

WSS-M2C300-A1

1. SCOPE

This material specification defines the physical and chemical properties of a polyalkylene glycol-based synthetic lubricant to be used with HFC-134a.

2. APPLICATION

This specification was released originally for oils used in air conditioning compressors operating within the temperature range of -40 to 125 °C.

3. REQUIREMENTS

3.1 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 SPECIFIC GRAVITY 0.95 - 1.05
(ASTM D 4052, 15.6/15.6 °C)

3.3 VISCOSITY
(ISO 3104/ASTM D 445)

Viscosity at 40 °C 40 – 50 mm²/s
Viscosity at 100 °C 9 - 9.3 mm²/s

3.4 WATER CONTENT 2000 ppm max

3.5 FLASH POINT 200 °C min
(ISO 2592/ASTM D 92)

3.6 POUR POINT -40 °C max
(ISO 3016/ASTM D 97)

3.7 EVAPORATION LOSS, 5.0% max
(ASTM D 972, 24 h at 100 +/- 2 °C)

3.8 TOTAL ACID NUMBER, 0.25 mg KOH/g max
(ASTM D 664)

3.9 LUBRICANT PAINT STAINING No softening,
(FLTM BJ 126-01) no discoloration

Date	Action	Revisions
2010 07 30	Activated	



Documents

W. Johnston, NA



3.10 WEAR PREVENTIVE CHARACTERISTICS
(ASTM D 3233)

3300 N min

3.11 SEALED TUBE STABILITY TEST
(ANSI/ASHRAE Standard 97-1989,
14 d at 175 +/- 2 °C with HFC-134a)

Change in Viscosity at 40 °C
(ASTM D 445)

10 mm²/s max

Test Method:

- After aging, visually inspect the test tube contents for liquid discoloration and any deposits formation. Visually inspect the metal coupons for discoloration or evidence of corrosion and/or copper plating.
- Analyze HFC-134a/PAG using the Selective Ion Electrode Method for ppm of fluoride and chloride.

3.12 CONSISTENCY

This material shall be free from acid, alkali, or other foreign matter. It must also be free from any objectionable odors.