



GREASE, SYNTHETIC HYDROCARBON OIL, SILICA THICKENED

WSB-M1C239-A

1. SCOPE

The material defined by this specification is a NLGI Grade 2 polyalphaolefin based grease thickened with silica.

2. APPLICATION

This specification was released originally for a greased terminal for use in the air bag circuits at the box spring connector. It is generally used for the lubrication and protection of electrical contacts. The service temperature range is -40 °C to 135 °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 COLOR
(Visual)

Clear -White

3.3 UNWORKED PENETRATION, tenths of a millimeter
(ASTM D217, DIN ISO 2137, 0 strokes)

250 min

3.4 WORKED PENETRATION, tenths of a millimeter
(ASTM D217, DIN ISO 2137, 60 stroke)

265 – 295

3.5 DROPPING POINT
(ASTM D2265, DIN ISO 2176)

260 °C min

3.6 COPPER CORROSION
(ASTM D4048 / DIN 51811)

1B max

3.7 OIL SEPARATION DURING STORAGE
(ASTM D1742, DIN 51817 or FTMS 791 C 321.3, room temp)

5% max

3.8 OIL SEPARATION FROM GREASE
(ASTM D6184, 24h at 100 °C)

5% max

3.9 EVAPORATION
(ASTM D972, 24h at 150 °C)

2.5% max

4. GENERAL INFORMATION

This information given below is provided for clarification and assistance in meeting the requirements of this specification. Contact gmfs@ford.com for questions concerning Engineering Material Specifications. Grease approved to this specification should have the following typical properties.

Date	Action	Revisions	Rev. 3
2012 02 16	Revised	See Summary of Revisions	A. Wedepohl, FNA
2004 04 29	Revised	Para 3.0 inserted; para 3.1, 3.2, 3.3, 3.5 & 4 deleted	
1992 01 27	Released	NB00110043054145	

**4.1 BASE OIL VISCOSITY**

(ASTM D445, DIN 51562, ISO 3104)

4.2.1 Kinematic Viscosity at 100 °C	39.4 mm ² /s
4.2.2 Kinematic Viscosity at 40°C	390 mm ² /s
4.2.3 Viscosity Index (ASTM D2270)	150

4.2 PENETRATION

(ASTM D217, DIN ISO 2137)

4.2.1 UnWorked Penetration, 0 strokes	266
4.2.1 Worked Penetration, 60 strokes	286
4.2.2 Prolonged Worked Penetration, 100,000 strokes	311

4.3 OXIDATION STABILITY

(ASTM D942 or DIN 51808, 168 hr.)

10.2 kPa

4.4 WATER WASHOUT

(ASTM D1264, DIN 51807 T02, 80 °C)

2%

4.5 OIL SEPARATION DURING STORAGE

(ASTM D1742, DIN 51817 or FTMS 791 C 321.3)

1.5%

4.6 OIL SEPARATION FROM GREASE

(ASTM D6184, 100 °C)

2.4%

4.7 EVAPORATION

(ASTM D972, 24h at 150 °C)

0.3%

4.8 VOLUME RESISTIVITY

(ASTM D257)

7.8 x 10E16 ohm/cm

4.9 BREAKDOWN VOLTAGE

(NYE CTM-9)

112 volts/mil

4.10 INTERFACE COMPATIBILITY**4.10.1 Chemical Attack to Painted Surfaces**
(FLTM BJ 126-01)

Note: Not tested for initial application of this grease. Grease must be tested for chemical attack to painted surfaces for applications that come in contact with paint surfaces, ex. E-coat and powder coat.

4.10.2 Resistance to Stress Cracking
(FLTM BO 127-03)

Note: Not tested for initial application of this grease. Grease must be tested for resistance to stress cracking when used for additional applications that come in contact with polymers such as PC, ABS, PC+ABS, ASA or acrylic

