



GREASE, LITHIUM SOAP, SYNTHETIC HYDROCARBON

WSS-M1C279-A

1. SCOPE

The material defined by this specification is grease consisting of a polyalphaolefin base oil thickened with a lithium soap. NLGI grade 2.

2. APPLICATION

This specification was released originally for low current electrical switch contacts and then HVAC mechanical air delivery vents.

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)

Light Tan/Yellow

3.3 WORKED PENETRATION, tenths of a millimeter (ASTM D217, DIN ISO 2137)

3.5.1 Unworked Penetration, Zero Strokes

260 min

3.5.2 Worked Penetration, 60 strokes

265 – 295

3.4 DROPPING POINT (ASTM D2265, DIN ISO 2176)

193 °C min

3.5 OIL SEPARATION FROM GREASE (ASTM D1742, DIN 51817 or FTMS 791 C 321.3, 24 hr at 100°C)

5% max

3.6 EVAPORATION (ASTM D972, 24h at 100 °C)

1% 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.

4.1 BASE OIL VISCOSITY (ASTM D445, DIN 51562, ISO 3104)

4.1.1 Kinematic Viscosity at 100 °C

6.0 mm²/s

4.1.2 Kinematic Viscosity at 40°C

33.0 mm²/s

Date	Action	Revisions	Rev. 0
2012 02 16	Activated		



Documents

Wendepohl, NA



4.2 OIL SEPARATION FROM GREASE (ASTM D1742, DIN 51817 or FTMS 791 C 321.3, 24 hr at 100°C)	2.9%
4.3 OIL SEPARATION DURING STORAGE (ASTM D1742, DIN 51817 or FTMS 791 C 321.3, 24 h at 25°C)	No data
4.4 EVAPORATION (ASTM D972, 24h at 100 °C)	<0.1%
4.5 4 BALL WEAR TEST, WEAR SCAR (ASTM D2266, DIN 51350 T 5, 40 kg, 1200 rpm, 75 °C, 1 h)	0.43 mm
4.6 OXIDATION STABILITY (ASTM D942 or DIN 51808, 100hr at 99°C)	13.6 kPa
4.7 COPPER CORROSION (ASTM D4048, 30 hr at 120°C)	2B
4.8 WATER WASHOUT (ASTM D1264, DIN 51807 T02, 38 °C)	No data
4.9 LOW TEMPERATURE TORQUE (ASTM D1478 or IP 186)	
-40 °C start	738 g/cm
-40 °C running at 10 min	295 g/cm
-40 °C running at 60 min	171 g/cm

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

4.10.3 Elastomer Compatibility (ASTM D4289, 70 h, 100 °C, DIN 53505, DIN 53504)

Note: Not tested for initial application of this grease. Grease must be tested for elastomer compatibility when used for additional applications that come in contact with elastomers. Application specific elastomer should be used for testing instead of a reference elastomer.

Determine change in volume, hardness change tensile strength and elongation.