



GREASE, PETROLEUM, TRANSMISSION PORT PLUGGING

WSS-M1C226-A3

1. SCOPE

The material defined by this specification is a petroleum based, lithium soap thickened grease.

2. APPLICATION

This specification was released originally for grease used to seal plastic shipping plugs into the ports of automatic transmissions to prevent leakage of residual fluid. Grease approved to this specification has the potential to be used in other applications, but this specification does not serve to qualify the material or performance for other applications.

3. REQUIREMENTS

3.1 APPROVED SOURCES

This specification requires the use of approved sources. Only the sources identified on the Ford Approved Source List (ASL) can be used when this specification is listed on the drawing, CAD file, or other documents. The list of approved sources is located within Ford at www.mats.ford.com or available externally through a Ford Materials Engineer.

The material specification number may be used as the part number for Ford purchasing. The approved source for this specification is:

Supplier: Chemtool Incorporated (GSDB: C409C)
Product Name: MC 2044NBF
NA Tox # 136426.

3.2 COLOR
(Visual)

Amber

3.3 UNWORKED PENETRATION, tenths of a millimeter
(ASTM D217, 0 stroke)

195 – 225

3.4 DROPPING POINT
(ASTM D566, ASTM D2265, DIN ISO 2176)

177 °C min

4. GENERAL INFORMATION

The 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.

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

3% max

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

1% max

Date	Action	Revisions	Rev. 0
2017 07 26	Released		



4.3 INTERFACE COMPATIBILITY

Compatibility testing was not performed and there are no known compatibility issues in this application. The grease interfaces with the aluminum housing, the polyethylene plug (ATSM D4000 PE113), and the transmission fluid (WSS-M2C949-A). Any changes to the grease should be reassessing for the application.

4.4 APPROVAL OF MATERIALS

Suppliers desiring approval of their materials shall first obtain an expression of interest from Purchasing, Design or Product Development, and Materials Engineering. The supplier shall submit a completed copy of their laboratory test reports, signed by a qualified and authorized representative of the test facility, demonstrating full compliance with all the requirements of the Material Specification. Tested material samples must be available for review upon request and kept for a minimum of one year. Upon request, the supplier will review the associated quality control documents (Process Failure Mode and Effects Analysis, Control Plans, Certification testing) with Ford.

4.5 SUPPLIER'S ONGOING RESPONSIBILITY

All materials must be equivalent in all characteristics to the material upon which approval was originally granted.

Prior to making any changes to the material originally approved, whether or not such changes affect the material's ability to meet the specification requirements, the supplier shall notify the affected Supplier Technical Assistance (STA), Purchasing, and Materials Engineering activities of the proposed changes (with reasons) by submission of a completed Suppliers Request for Engineering Approval, SREA.

For parts and components using Ford Engineering Material Specifications, all samples tested to the specifications for Design Verification (DV), Production Verification (PV) and Production Part Approval Process (PPAP) sign off must be kept until Job 1.

4.6 RESTRICTED SUBSTANCE MANAGEMENT STANDARD

Substance restrictions imposed by regulations or Company direction applies to the materials addressed by this document. The restrictions are identified in the Restricted Substance Management Standard WSS-M99P9999-A1 which is updated yearly. It is the supplier's responsibility to comply with this standard on a continuing basis through IMDS and or GMAP reporting.

5. SUMMARY OF REVISIONS