



POLYVINYL CHLORIDE (PVC) PLASTISOL

ESA-M4D614-A

1. SCOPE

The material defined by this specification is a heat cured, color matchable polyvinyl chloride plastisol material.

2. APPLICATION

This specification was released originally for material used for the steering column shift lever seal where excellent low temperature properties are required.

3. REQUIREMENTS

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).

3.4 APPEARANCE (FLTM BI 109-01)

The color and finish shall match the approved Design Center master sample as specified on the engineering drawing.

3.5 MATERIAL TESTING

3.5.1 Preparation of Test Specimens

Whenever possible, all test specimens shall be die-cut from the finished parts. When not feasible, specimens cut from molded test sheets manufactured from the same material and with equivalent cure to molded parts are recommended. The molding conditions must be submitted at the time of qualification testing. The test sheets shall have the following dimensions:

150 x 150 mm, min x 2.0 +/- 0.2 mm

3.6 ORIGINAL PROPERTIES

3.6.1	Hardness, Durometer A (ISO 868/ASTM D 2240, 15 s delay)	45 +/- 5
3.6.2	Tensile Strength, min (ISO R 527, type 2/ASTM D 412, Die C, 500 mm/min test speed)	6.9 MPa
3.6.3	Elongation at Break, min (Test Method according to para 3.6.2)	350%

Date	Action	Revisions
2005 08 31	Revised	Inserted 3.0; Deleted 3.1, 3.2, 3.3, 3.10 & 4
1993 03 22	Revised	NC00-E-10244447-007 L. Mastrofrancesco
1989 01 16	Released Incomplete	NC00E10010015000 RFW L. Mastrofrancesco



3.6.4 Tear Strength, min
(ISO 34, Method B, Procedure a/
ASTM D 624, Die C) 13 kN/m

3.6.5 Low Temperature Retraction, min
(ASTM D 1329, TR10) -35 °C

3.6.6 Brittleness Point, max
(ASTM D 2137, Method A) -60 °C

3.7 HEAT AGED
(ASTM D 865, 70 h at 100 +/- 2 °C)

Hardness Change, max +/- 5

Tensile Strength Change, max +/- 20%

Elongation Change, max +/- 15%

3.8 RESISTANCE PROPERTIES

3.8.1 H₂S Staining
(FLTM AN 102-01) Rating 5

3.8.2 Weathering, Xenon Arc
(SAE J1885, 488 kJ/m² exposure minimum) Rating 3

3.8.3 Wear
(FLTM BN 108-01, 1000 cycles, 500 g load) Pass

3.9 FLAMMABILITY
(ISO 3795/SAE J369)

Burn Rate, max 100 mm/minute

5. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification.

5.1 RECYCLING CODE

>PVC<