



CELLULAR ELASTOMER, GASKET

WSK-M2D419-A

1. SCOPE

This specification defines performance requirements for cellular elastomeric gasket based on natural or synthetic rubbers.

2. APPLICATION

This specification was released originally for material used as gaskets for front and rear signal lamps.

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 TEST SPECIMEN

3.4.1 Compression Deflection (ASTM D 1056)

Type 1	3.5 - 14.0 kPa
Type 2	14.0 - 35.0 kPa
Type 3	35.0 - 63.0 kPa
Type 4	63.0 - 91.0 kPa
Type 5	91.0 - 119.0 kPa
Type 6	119.0 - 168.0 kPa

The desired material type shall be defined on the Engineering Drawing.

3.4.2 Contact and Migration Staining (FLTM BP 153-01, Procedure A & B)

	Rating
3.4.2.1 No Migration Staining	5
3.4.2.2 Slight Contact Staining	4
3.4.2.3 No Contact Staining	5

The desired requirement shall be defined on the Engineering Drawing.

3.4.3 Staining by Water Extractables (FLTM BP 153-02, Procedure A & B)

No Staining	Rating 5
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Date	Action	Revisions
2004 10 13	Revised	Para 3.0 inserted; para 3.1, 3.2, 3.3, 3.5, 3.6 & 4 deleted
1995 07 19	Revised	Updated para 4 to Performance Para
1989 11 17	Released	SM/EQ9859 TP



3.4.4 Dimensional Stability

Dimensional Change -5 to +1%

Test Method: A specimen approx. 300 x 300 mm x thickness of actual part or a relevant section of molded part with skin shall be placed in a mechanical convection oven at 80 +/- 2 °C for 3 h. Dimensional changes shall be measured after cooling down to room temperature.

3.4.5 Cold Flexibility

No cracks or breaks

Test Method: Three specimens approx. 150 x 25 mm x thickness of actual parts (or relevant sections of molded parts) with skin and a mandrel (40 mm in diameter) are to be placed in a cold box at -40 +/- 1 °C. After 6 h the samples are to be bent around the mandrel within one second. The tests are to be performed in the cold box. Examine in bent condition after conditioning to room temperature.

3.4.6 Ozone Resistance (FLTM BP 101-01, Procedure A)

3.4.6.1 Rating 0

3.4.6.2 Rating 1, max

3.4.6.3 Rating 2, max

The desired requirement shall be defined on the Engineering Drawing.

3.4.7 Water Absorption, max (ASTM D 1056, expose specimen to 84 kPa vacuum)

5%

3.4.8 Leakage Test

Test Method: From test slabs in thickness of the finished part cut out rings with an inside diameter of 100 mm and an outside diameter of 120 mm. For molded parts relevant sections shall be used. The ring is to be cut into two equal parts. One part is to be placed between two glass plates of appropriate size. By use of spacers the specimen is to be compressed between the plates to 50% of its original thickness, and stabilized with suitable clamps. The spacers are to be stabilized outside of the half ring. Two test specimens shall be prepared for the following tests. For details see sketch on page 6.

3.4.8.1 Leakage Test After Heat Ageing

After assembling of test equipment with test specimens in place, store in a convection oven for 7 days at 80 +/- 2 °C. After removal from the oven store for 3 - 4 h at room temperature. Place 2 - 3 mL distilled water in the open half ring and store 24 h at room temperature. No water shall leak to the bottom between the half ring (or molded part) and the glass plates. Penetration of water up to 5 mm between test specimens (test slabs only) and glass plates is acceptable. The use of tinted water (e.g. thymol blue) is helpful.