



POLYACRYLIC (ACM) RUBBER, ROTATING SHAFT OIL SEAL

WSK-M2D457-A2

NOT TO BE USED FOR NEW DESIGN

WSK-M2D457-A3

1. SCOPE

The materials defined by these specifications are polyacrylic rubber compounds.

2. APPLICATION

These specifications were released originally for material used for rotating shaft oil seals transfer boxes.

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 SLAB STOCK**3.2.1 Preparation of Test Specimens**

All tests are to be performed on specimens die-cut from the molded test sheets manufactured from the same material and with equivalent cure to production parts. The test sheets shall have the following dimensions:

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

	A2	A3
3.2.2 Density, g/cm ³ (ISO 1183, Method A/ ASTM D 297)	1.38 - 1.42	1.28 - 1.32
3.2.3 Hardness, (IRHD) (ISO 48/ASTM D 1415)	72 - 82	65 - 75
3.2.4 Hardness, Durometer A, <u>points</u> (ISO 868/ASTM D 2240, instantaneous, plied-up specimen. Hand held durometers shall not be used)	75 - 85	65 - 75
3.2.5 Tensile Strength, MPa, min (ISO 37/ASTM D 412, Die C)	5	5
3.2.6 Elongation at Break, %, min (Test Method according to para 3.2.5)	60	60

Date	Action	Revisions
2010 05 25	A2-N-STATUS	No replacement named C. Mracna, NA
2004 10 12	Revised	Revised Format
1997 03 27	Inactivated	





ENGINEERING MATERIAL SPECIFICATION

WSK-M2D457-A2/A3

		A2	A3
	3.2.7	Modulus at 50% Elongation, MPa, min (Test Method according to para 3.2.5)	4.0 1.5
	3.2.8	Tear Strength, kN/m, min (ISO 34, Method B, Procedure A/ ASTM D 624, Die C)	10 10
	3.2.9	Brittleness Point, °C, max - (ISO 812, Type B specimen/ ASTM D 2137, Method A)	10 -7
	3.2.10	Ozone Resistance, max (FLTM BP 101-01, Procedure A)	Rating 0 Rating 0
	3.2.11	Compression Set, %, max (ISO 815/ASTM D 395, Method B, 25% compression, plied-up specimens, 22 h at 150 +/- 2 °C)	85 70

3.3 HEAT AGED

(ISO 188/ASTM D 573, 150 +/- 50 air
changes/h, 168 h at 150 +/- 2 °C)

	3.3.1	Hardness Change, <u>points</u> max	+10 +15
	3.3.2	Tensile Strength Change, %, max	-40 -40
	3.3.3	Elongation Change, %, max	-50 -50
	3.3.4	Visual Evaluation	

No surface tackiness or cracks when folded flat against itself.

3.4 HEAT AGED

(ISO 188/ASTM D 573, 150 +/- 50 air
changes/h, 1,000 h at 150 +/- 2 °C)

	3.4.1	Hardness Change, <u>points</u> max	+16 +20
	3.4.2	Tensile Strength Change, %, max	+70 -10
	3.4.3	Elongation Change, %, max	-75 -55
	3.4.4	Visual Evaluation	

No surface tackiness or cracks when folded flat against itself.