



Elastomer for Gaskets Washer Pump, High Pressure Pump

1 Scope

1.1 Material Description. Materials covered by this specification are divided into two (2) types.

1.1.1 Type A: Elastomer.

1.1.2 Type B: Drawing defined (e.g., using SAE J200 or ASTM D2000 line callout).

1.2 Symbols. Not applicable.

1.3 Applicability. This specification covers the materials and performance of elastomeric gaskets used in washer pump or high pressure pump applications.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM D2000	ISO 48	ISO 1431-1	ISO 23529
ISO 37	ISO 188	ISO 1817	SAE J200

2.2 GM Standards/Specifications.

9985670	B 440 0064	GMW3059	GMW14270
B 040 0218			

2.3 Additional References.

Drawing/Math Data File

Relevant Test Method

3 Requirements

3.1 Resources.

3.1.1 Test Samples. Unless otherwise specified, the shape, size and number of test pieces shall be in accordance with the relevant test method. Unless otherwise specified, samples are finished parts or to be taken from finished parts. If not otherwise stated, mechanical properties in delivery state and after heat or fluid immersion are to be tested at +23 °C and with the same test methods.

3.1.2 Conditioning. Conditioning shall be as specified in the relevant test method.

3.1.3 Equipment. Conforming to the relevant test methods.

3.1.4 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.5 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this specification shall be determined correctly with respect to its physical definition.

3.1.6 Facilities. Conforming to the relevant test methods.

3.1.7 Deviations. Deviations from the requirements of this specification shall have been agreed upon. Such deviations shall be specified on component drawings, test certificates, reports, etc.

3.2 Material and Performance Requirements. Material and performance requirements are summarized in Table 1.

3.3 All materials supplied to this standard must comply with GMW3059, **Restricted and Reportable Substances**, including the requirement to submit a full material composition disclosure to GM via the International Material Data System (IMDS) or via a completed GMW3059 report form.

Table 1: Material and Performance Requirements

Property	Test Method	Unit	Value
Hardness			
Type A	ISO 48 Method M	International Rubber Hardness Degree (IRHD)	As specified on drawing
Type B	As specified on drawing/math data file	Shore A	As specified on drawing
Elongation at Break			
Type A	ISO 37, Type 4 dumbbell, 200 mm/minute $\pm$ 20 mm/minute or ring shaped test piece, 500 mm/minute $\pm$ 50 mm/minute	Percent (%)	200 minimum
Type B	As specified on drawing/math data file	%	As specified on drawing
Age Resistance (Heat Aging)			
Type A	ISO 188 Method B, 168 h -2 h at 70 °C $\pm$ 3 °C Change in Hardness	IRHD	+10 maximum
Type B	As specified on drawing/math data file	Not applicable	As specified on drawing
Ozone Resistance			
Type A	ISO 1431-1, 50 pphm, 40 °C $\pm$ 2 °C, 20% strain, and visual examination Test only elastomer parts in contact with air	Not applicable	No cracks permissible
Type B	As specified on drawing/math data file	Not applicable	No cracks permissible
Cold Resistance			
Type A	ISO 23529, -30 °C $\pm$ 3 °C, 5 h +1 h, bending test – Radius = 1 mm	Not applicable	No cracks
Type B	As specified on drawing/math data file	Not applicable	As specified on drawing