

Akron Rubber Development Laboratory, Inc.



TEST CERTIFICATE

This document certifies FKM 938

From

Greene, Tweed & Co.

PASSED

the technical requirements for Fluid Aging

In accordance with Annex A, ISO 23936-2, 2011 Edition and Norsok M-710, Rev.3

Test Gas Classification	A.5 (A.1.ii and A.3.i) Multi-Phase Normal H ₂ S Sour Gas Aromatic Fluid Mix
Test Temperature	165°C, 180°C, and 195°C
Initial Charge Pressure	6.0 +/- 0.5 MPa (870 +/- 72 psi)
Test Specimen	Type 2 ISO 37 test specimens
Operational Service Temperature Classification	150°C

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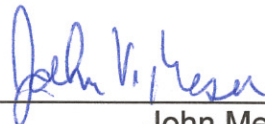
ARDL verifies that FKM 938 Type 2 ISO 37 test specimens, supplied by Greene, Tweed & Co., have been subjected to ISO 23936-2 Annex A and NORSOK M-710 Rev 3 test specifications with no failures during the 42 day aging test.

Property	Measured	Allowable Change	Source	Comment
% Change Volume min/max	Min Increase +4.9% Max Increase +6.5% No Decrease	-5/+25%	ISO, NORSOK	Within specification
Hardness min/max	Min Decrease -7.6 Points Max Decrease -14.0 Points No Increase	+5/-20 Points	ISO, NORSOK	Within specification
% Change Modulus at 50% Elongation min/max	Min Decrease -4.6% Max Decrease -33.0% No Increase	±50%	ISO, NORSOK	Within specification
% Change Modulus at 100% Elongation min/max	Min Decrease -7.8% Max Decrease -28.9% No Increase	±50%	ISO, NORSOK	Within specification
% Change Peak Stress min/max	Min Decrease -0.8% Max Decrease -10.5% No Increase	±50%	ISO, NORSOK	Within specification
% Change Elongation min/max	Min Increase +6.7% Max Increase +23.2% No Decrease	±50%	ISO, NORSOK	Within specification

The results indicate that the material is resistant to the simulated fluid media specific herein. The FKM 938 Elastomer **PASSED** the full requirements of Annex A per ISO 23936-2 and Norsok M710 Rev 3, under the stated conditions.



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