

**Akron Rubber Development Laboratory, Inc.**



**TEST CERTIFICATE**

This document certifies Chemraz<sup>®</sup> 600 FFKM

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.ii) Multi-Phase High H <sub>2</sub> S Sour Gas Aromatic Fluid Mix
Test Temperature	195°C, 210°C, and 225°C
Initial Charge Pressure	6.0 +/- 0.5 MPa (870 +/- 72 psi)
Test Specimen	Type 2 ISO 37 test specimens
Operational Service Temperature Classification	180°C

Prepared By: David Nuss  
David Nuss  
Staff Engineer  
ARDL Engineering

Approved By: John V. Meser  
John Meser  
Manager  
ARDL Engineering



An A2LA Accredited Testing Laboratory — Certificate Numbers 255.01 & 255.02  
ISO 9001:2008 Registered

**ISO 9001:2008**  
Registered


\*Certificate Numbers 255.01 & 255.02

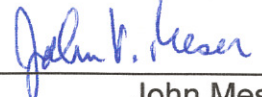
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ARDL verifies that Chemraz® 600 FFKM Type 2 ISO 37 test specimens, supplied by Greene, Tweed & Co., have been subjected to ISO 23936-2 Annex A and NORSOK M-710 Rev 3 test specifications with no failures during the 42 day aging test.

Property	Measured	Allowable Change	Source	Comment
% Change Volume min/max	Min Increase +2.9% Max Increase +9.6% No Decrease	-5/+25%	ISO, NORSOK	Within specification
Hardness min/max	Min Decrease -5.4 Points Max Decrease -10.0 Points No Increase	+5/-20 Points	ISO, NORSOK	Within specification
% Change, Modulus at 50% Elongation min/max	Max Decrease -29.9% Max Increase +10.9%	±50%	ISO, NORSOK	Within specification
% Change, Modulus at 100% Elongation min/max	Max Decrease -25.0% Max Increase +0.2%	±50%	ISO, NORSOK	Within specification
% Change Peak Stress min/max	Max Decrease -21.6% Max Increase +7.7%	±50%	ISO, NORSOK	Within specification
% Change Elongation min/max	Min Increase +4.7% Max Increase +27.1% No Decrease	±50%	ISO, NORSOK	Within specification

The results indicate that the material is resistant to the simulated fluid media specific herein. The Chemraz® 600 FFKM 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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 David Nuss  
 Staff Engineer  
 ARDL Engineering

  
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 John Meser  
 Manager  
 ARDL Engineering