

**Ozone Testing per ASTM F477 [2021]  
In chamber per ASTM D1149 [2018]**

Element Saudi Arabia  
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Date: May 15, 2025  
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Report Number: ESP044366P

**Ozone Exposure Testing of Rubber  
Saudi Rubber Products Factory**

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**EAR-CONTROLLED DATA**
**INTRODUCTION:**

This report presents the results of ozone exposure tests performed on rubber specimens. This testing was conducted in accordance with ASTM F477-21 requirements. Testing was requested by Falwah Alajmi of Element Saudi Arabia. The samples were received at Element Des Moines on April 26<sup>th</sup>, 2025, with the testing conducted from May 7<sup>th</sup>, 2025 to May 12<sup>th</sup>, 2025.

**TEST SAMPLES:**

Sheets of Saudi Rubber Products Factory SBR and EPDM were received for ozone resistance testing, as identified on the table below. Three strips sized 1" wide were cut from each type and elongated for testing.

**TEST METHOD:**

Samples were tested in accordance with ASTM F477-21 section 7.9 requirements. Each strip was elongated 20% over a wooden block per ASTM D1149-18 Method B, Procedure B1. The elongated samples were conditioned in an ozone free environment for a minimum of 24 hours and then placed in the ozone chamber for 72 hours. The chamber was maintained at 50pphm ozone concentration by volume and 40 +/- 2 °C for the duration of exposure. At the conclusion of the exposure each specimen was evaluated at 7x magnification and checked for surface cracking. The results of this testing are documented below.






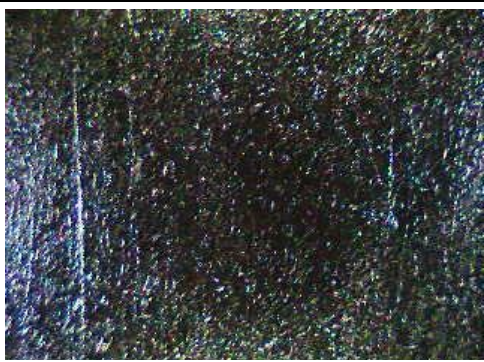
**Test Requirement Specified:** No visible cracking.

**SUMMARY OF RESULTS:**

ASTM D1149-18 Method B, Procedure B1		
Sample ID	Sample #	Results
Saudi Rubber Products Factory SBR Batch Code: SBR3SS25D17B11	1	No Visible Cracks  Complies
	2	
	3	
Saudi Rubber Products Factory EPDM Batch Code: EPDM3SS25D16B3	1	No Visible Cracks  Complies
	2	
	3	






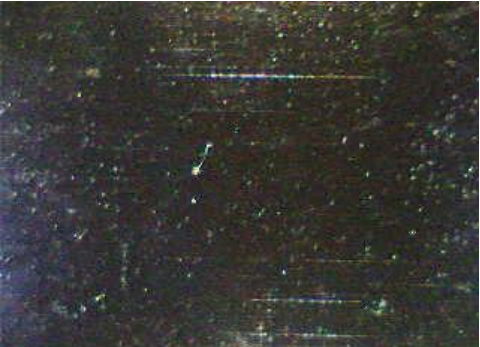
**EAR-CONTROLLED DATA**

**RESULTS:**

Specimen Identification	Before Exposure	After Exposure	Results
			
<p>SBR Sample 1</p>	<p>7x magnification Before Exposure</p>	<p>7x magnification After Exposure</p>	<p>No Visible Cracks  Complies</p>
			
			







**EAR-CONTROLLED DATA**

**RESULTS (continued):**

Specimen Identification	Before Exposure	After Exposure	Results
			
SBR Sample 2	7x magnification Before Exposure	7x magnification After Exposure	No Visible Cracks  Complies
			
			






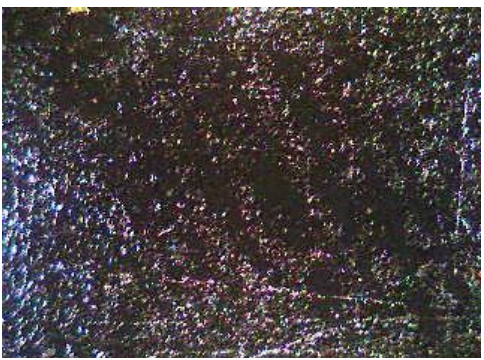
**EAR-CONTROLLED DATA**

**RESULTS (continued):**

Specimen Identification	Before Exposure	After Exposure	Results
			
SBR Sample 3	7x magnification Before Exposure	7x magnification After Exposure	No Visible Cracks  Complies
			
			



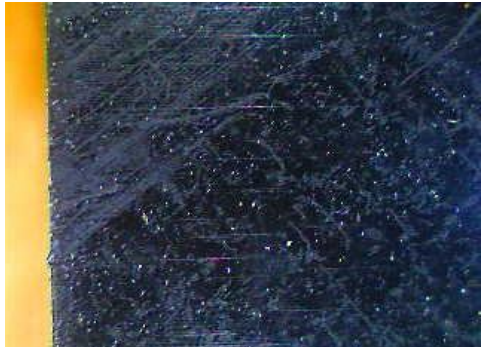


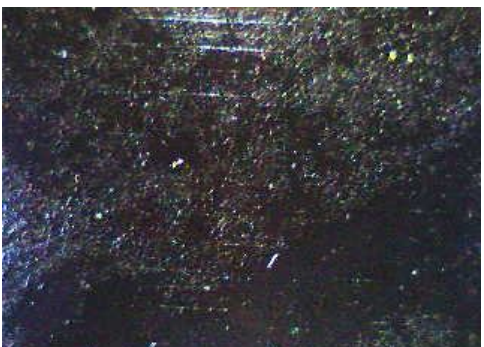
**EAR-CONTROLLED DATA**

**RESULTS (continued):**






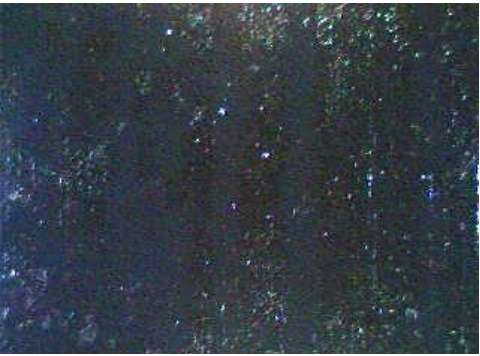
Specimen Identification	Before Exposure	After Exposure	Results
			
EPDM Sample 1	7x magnification Before Exposure	7x magnification After Exposure	No Visible Cracks  Complies
			
			

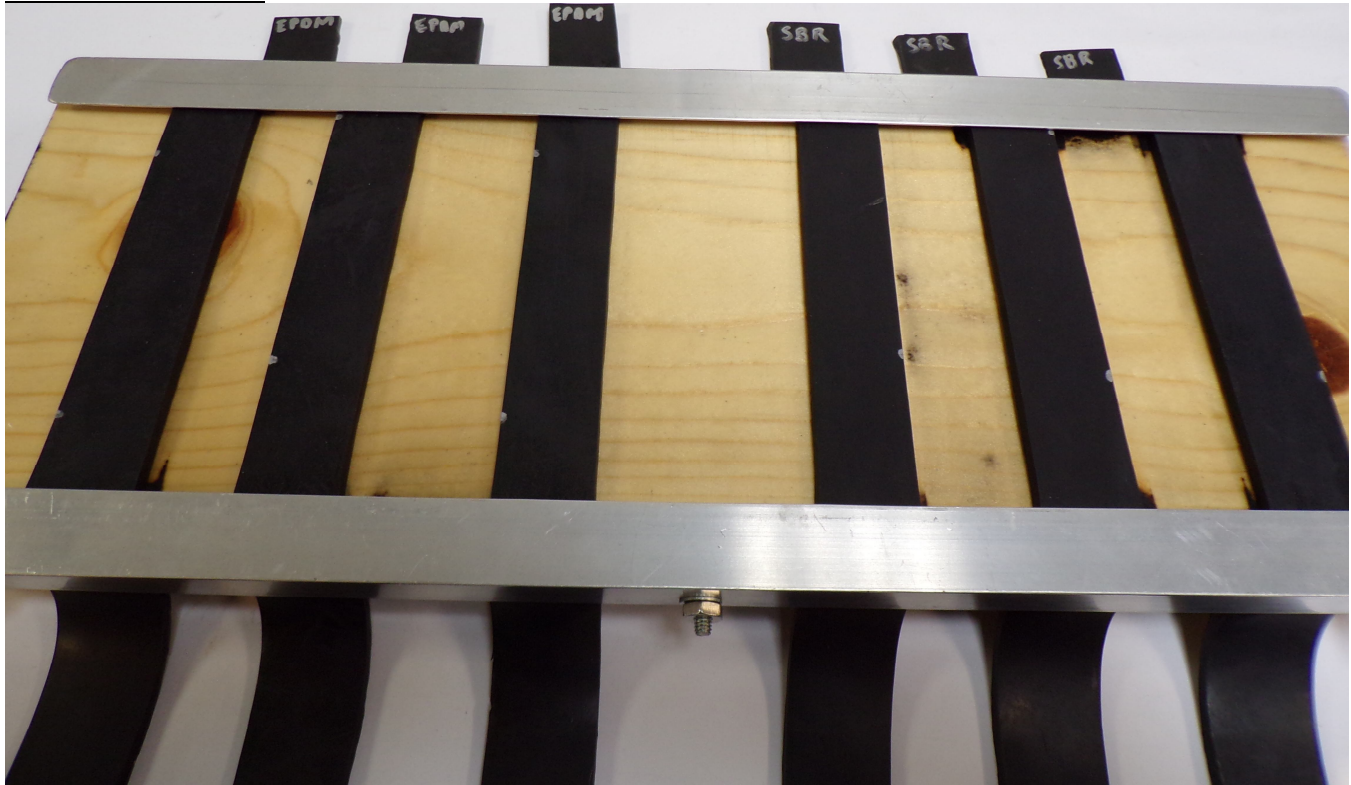
**EAR-CONTROLLED DATA**

**RESULTS (continued):**

Specimen Identification	Before Exposure	After Exposure	Results
			
EPDM	7x magnification Before Exposure	7x magnification After Exposure	No Visible Cracks
Sample 2			Complies
			

**EAR-CONTROLLED DATA**
**RESULTS (continued):**

Specimen Identification	Before Exposure	After Exposure	Results
			
EPDM	7x magnification Before Exposure	7x magnification After Exposure	No Visible Cracks
Sample 3			Complies
			

**EAR-CONTROLLED DATA****TEST SETUP PHOTO:**

Samples Elongated 20%

**CALIBRATED TEST EQUIPMENT:**

- |               |  |                     |
|---------------|--|---------------------|
| • PT-174-045a | Ozone Test Chamber/ozone monitor       | Due Date 04/16/2026 |
| • PT-174-045b | Ozone Test Chamber/temperature monitor | Due Date 01/10/2026 |
| • PT-171-048  | Digital Caliper                        | Due Date 01/07/2026 |

**DISPOSAL:**

Test samples will be disposed of in 30 days unless otherwise requested by client.

Respectfully submitted,



Adam Scarlett  
Engineering Technician



Brian S. Escherich  
Operations Manager