



# COMPOUND DATA SHEET

## MATERIAL REPORT

LTR Report Number: 85371  
Date: 02/02/2012

**Title:** Evaluation of Parker Compound N1470-70

**Elastomer Type:** Acrylonitrile-Butadiene (NBR)

**Purpose:** To obtain typical test data.

**Specification:** ASTM D2000 M2BG714 B14 B34 EA14 EF11 E014 E034 Z1 (Specific Gravity) Z2 (TR-10)

**Color:** Black

**Recommended Temperature Range:** -40°F to 225°F

**Recommended For:** Aliphatic hydrocarbons (propane, butane, petroleum oil, mineral oil and grease, diesel fuel, fuel oils) vegetable oils, mineral oils, greases, HFA, HFB, and HFC hydraulic fluids, water (up to 212°F), salt & alkali solutions, and dilute acids

**Not Recommended For:** Fuels of high aromatic content, aromatic hydrocarbons (benzene), chlorinated hydrocarbons (trichloroethylene), strong acids, glycols, ozone, weather, atmospheric aging, and polar solvents (ketone, acetone, acetic acid, ethylene-ester)

**Additional Approvals:** N/A

## REPORT DATA

<u>Original Physical Properties</u>	<u>Test Method</u>	<u>Spec Limits</u>	<u>Test Results</u>
Hardness, Shore A, pts.	ASTM D2240	70 ±5	75
Tensile Strength, PSI	ASTM D412	1450	2263
Ultimate Elongation, %	ASTM D412	250	262
(Z1) Specific Gravity	ASTM D297	as received	1.25
<b>(B14) Compression Set (Solid)</b>			
<b><u>22 hrs. @ 212°F</u></b>			
Percent of Original Deflection, Max	ASTM D395 Method B	25	8
<b>(B34) Compression Set (Plied)</b>			
<b><u>22 hrs. @ 212°F</u></b>			
Percent of Original Deflection, Max	ASTM D395 Method B	25	18
<b>Heat Age, (Basic Requirement)</b>			
<b><u>70 hrs. @ 212°F</u></b>			
Hardness Change, pts.	ASTM D573	± 15	+3
Tensile Strength Change, %		± 30	+10
Ultimate Elongation Change, %		-50	-11
<b>(EA14) Fluid Resistance</b>			
<b><u>Water, 70 hrs @ 212°F</u></b>			
Hardness Change, pts.	ASTM D471	± 10	+1
Volume Change, %		± 15	+3
<b>(EF11) Fluid Resistance</b>			
<b><u>Fuel A, 70 hrs @ 73°F</u></b>			
Hardness Change, pts.	ASTM D471	± 10	-4
Tensile Strength Change, %		-25	-11
Ultimate Elongation Change, %		-25	-13
Volume Change, %		-5 to +10	+3
<b>(E014) Fluid Resistance</b>			
<b><u>IRM 901, 70 hrs @ 212°F</u></b>			
Hardness Change, pts.	ASTM D471	-5 to +10	+2
Tensile Strength Change, %		-25	+16
Ultimate Elongation Change, %		-45	-3
Volume Change, %		-10 to +5	-5

## Parker O-Ring Division, North America

### **(E034) Fluid Resistance**

#### **IRM 903, 70 hrs @ 212°F**

	<b>Test</b>	<b>Spec</b>	<b>Test</b>
	<b><u>Method</u></b>	<b><u>Limits</u></b>	<b><u>Results</u></b>
Hardness Change, pts.	ASTM D471	-10 to +5	-9
Tensile Strength Change, %		-45	+6
Ultimate Elongation Change, %		-45	-6
Volume Change, %		0 to +25	+14

### **(Z2) Low Temperature Resistance**

TR-10, temperature °F	ASTM D1329	report	-35
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