



COMPOUND DATA SHEET

MATERIAL REPORT

LTR Report Number: 85868
Date: 2/21/2012



Contact Us

Title: Evaluation of Parker Compound N0507-90

Elastomer Type: Acrylonitrile-Butadiene (NBR)

Purpose: To obtain typical test data.

Specification: ASTM D2000 M2BG910 B14 B34 EA14 EF11 EF21 E014 E034 Z1 (Specific Gravity) Z2 (TR-10) Z3 (Min. Elongation 85%)

Color: Black

Recommended Temperature Range: -65°F to 180°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, 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: AMS-P-5510

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	90 ±5	90
Tensile Strength, PSI	ASTM D412	1450	1740
(Z3) Ultimate Elongation, %	ASTM D412	85	103
(Z1) Specific Gravity	ASTM D297	report	1.33
(B14) Compression Set (Plied)			
<u>22 hrs. @ 212°F</u>			
Percent of Original Deflection, Max	ASTM D395 Method B	25	8
(B34) Compression Set (Solid)			
<u>22 hrs. @ 212°F</u>			
Percent of Original Deflection, Max	ASTM D395 Method B	25	14
Heat Age, (Basic Requirement)			
<u>70 hrs. @ 212°F</u>			
Hardness Change, pts.	ASTM D573	± 15	+3
Tensile Strength Change, %		± 30	-4
Ultimate Elongation Change, %		-50	-22
(EA14) Fluid Resistance			
<u>Water, 70 hrs @ 212°F</u>			
Hardness Change, pts.	ASTM D471	± 10	-2
Volume Change, %		± 15	+5
(EF11) Fluid Resistance			
<u>Fuel A, 70 hrs @ 73°F</u>			
Hardness Change, pts.	ASTM D471	± 10	-5
Tensile Strength Change, %		-25	-11
Ultimate Elongation Change, %		-25	-10
Volume Change, %		-5 to +10	+3
(EF21) Fluid Resistance			
<u>Fuel B, 70 hrs @ 73°F</u>			
Hardness Change, pts.	ASTM D471	0 to -30	-14
Tensile Strength Change, %		-60	-22
Ultimate Elongation Change, %		-60	-30
Volume Change, %		0 to +40	+21

Parker O-Ring Division, United States

(E014) Fluid Resistance	Test	Spec	Test
<u>IRM 901, 70 hrs @ 212°F</u>	<u>Method</u>	<u>Limits</u>	<u>Results</u>
Hardness Change, pts.	ASTM D471	-5 to +10	+1
Tensile Strength Change, %		-25	-15
Ultimate Elongation Change, %		-45	-21
Volume Change, %		-10 to +5	-7
(E034) Fluid Resistance			
<u>IRM 903, 70 hrs @ 212°F</u>			
Hardness Change, pts.	ASTM D471	-10 to +5	-4
Tensile Strength Change, %		-45	-5
Ultimate Elongation Change, %		-45	-30
Volume Change, %		0 to +25	+6
<u>(Z2) Low Temperature Resistance</u>			
TR-10, temperature °F	ASTM D1329	report	-43