



# COMPOUND DATA SHEET

Parker O-Ring & Engineered Seals Division, Global Business Unit

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## MATERIAL REPORT

DATE: 2/3/2017

**Title:** Evaluation of Parker Compound, E1549-70

**Elastomer Type:** Ethylene-Propylene Rubber (EPR, EPDM)

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

**Specification:** ASTM D2000 M3DA714 A26 B36 EA14 F19 G11 G21 Z1 Z2 Z3  
Z1= Compliant with FDA (21 CFR 177.2600) and certified to NSF 61  
Z2 = TR1-10 per ASTM D1329, -40°C or lower  
Z3 = Use the following limits to EA14 Water Immersion  
Hardness change  $\pm$  5 points  
Tensile Strength change -25% max  
Elongation change -25% max

**Color:** Black

**Recommended Temperature Range:** -70°F to 250°F

**Recommended For:** Hot water and steam up to 400°F, glycol based brake fluids (DOT3 and DOT4), silicone based brake fluids (DOT5), many organic and inorganic acids, cleaning agents, sodium and potassium alkalis, many polar solvents (alcohols, ketones, esters), ozone, aging and weather resistance.

**Not Recommended For:** Mineral oil products (oils, greases, and fuels)

**Additional Approvals:** FDA and NSF 61

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under federal law."*

## REPORT DATA

<u>Original Physical Properties</u>	<u>Test Method</u>	<u>Spec Limits</u>	<u>Results</u>
Hardness, Shore A, pts.	ASTM D2240	70 ± 5	70
Tensile Strength, PSI (MPa)	ASTM D412	2031 (14)	2161
Ultimate Elongation, %	ASTM D412	200	336
Specific Gravity	ASTM D412	Report	1.11
FDA Compliant (Z1)		Yes	Yes
NSF 61 Certified (Z1)		Yes	Yes
<b>(A26) Heat Age</b>			
<b><u>70 hrs. @ 302°F (150°C)</u></b>			
Hardness Change, pts.	ASTM D573	+ 10	+ 3
Tensile Strength Change, %		- 20	+ 2
Ultimate Elongation, %		- 20	- 10
<b>(B36) Compression Set (Plid)</b>			
<b><u>22 hrs. @ 302°F (150°C)</u></b>			
Percent of Original Deflection, Max	ASTM D395 Method B	25	22
<b>(EA14) Fluid Resistance</b>			
<b><u>Water, 70 hrs. @ 212°F (100°C)</u></b>			
Hardness Change, pts. (Z3)	ASTM D471	±5	-2
Tensile Strength Change, % (Z3)		-25	+2
Ultimate Elongation Change, % (Z3)		-25	0
Volume Change, %		±5	+2
<b><u>(G11) Tear Resistance</u></b>			
Die 'B' (kN/m)	ASTM D624	17	32
<b><u>(G21) Tear Resistance</u></b>			
Die 'C' (kN/m)	ASTM D624	17	37
<b><u>(F19) Low Temperature Resistance</u></b>			
Non-Brittle after 3 min @ -67°F (-55°C)	ASTM D2137	Pass	Pass
<b><u>Low Temperature Resistance</u></b>			
TR-10°C (Z2)	ASTM D1329	-40°C or lower	-42°C