



# COMPOUND DATA SHEET

Parker O-Ring Division, North America

## MATERIAL REPORT

LTR Report Number: 95610  
Date: 7/11/2013



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**Title:** Evaluation of Parker Compound S0455-70

**Elastomer Type:** Silicone (VMQ, PVMQ)

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

**Specification:** ASTM D2000 M7GE705 A19 B37 EA14 E016 E036 F19 G11 Z1 (Specific Gravity)  
Z2 (Elongation %, minimum 110)

**Color:** Rust

**Recommended Temperature Range:** -65°F to 450°F/500°F

**Recommended For:** Animal, Vegetable oil, and grease, high molecular weight chlorinated aromatic hydrocarbons (including flame-resistant insulators, and coolant for transformers), moderate water resistance, diluted salt solutions, ozone, aging, and weather resistance.

**Not Recommended For:** Superheated water/steam over 250°F, acids and alkalis, low molecular weight chlorinated hydrocarbons (trichloroethylene), hydrocarbon based fuels, aromatic hydrocarbons (benzene, toluene), low molecular weight silicone oils.

**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	68
Tensile Strength, PSI	ASTM D412	725	888
<b>(Z2) Ultimate Elongation, %</b>	ASTM D412	110	118
<b>(Z1) Specific Gravity</b>	ASTM D297	report	1.28
<b>(B37) Compression Set (Plied)</b>			
<b><u>22 hrs. @ 347°F</u></b>			
Percent of Original Deflection, Max	ASTM D395 Method B	30	11
<b>(A19) Heat Age</b>			
<b><u>70 hrs. @ 437°F</u></b>			
Hardness Change, pts.	ASTM D573	+10	+4
Tensile Strength Change, %		-25	+3
Ultimate Elongation Change, %		-30	-3
<b>(EA14) Fluid Resistance</b>			
<b><u>Water, 70 hrs @ 212°F</u></b>			
Hardness Change, pts.	ASTM D471	± 5	-3
Volume Change, %		± 5	+1
<b>(E016) Fluid Resistance</b>			
<b><u>IRM 901, 70 hrs @ 302°F</u></b>			
Hardness Change, pts.	ASTM D471	-0 to -15	-5
Tensile Strength Change, %		-20	-5
Ultimate Elongation Change, %		-20	+5
Volume Change, %		0 to +15	+6
<b>(E036) Fluid Resistance</b>			
<b><u>IRM 903, 70 hrs @ 302°F</u></b>			
Hardness Change, pts.	ASTM D471	-40	-18
Volume Change, %		+60	+41
<b>(G11) Tear Resistance</b>			
<u>kN/m, min.</u>	ASTM D624	9	12
<b><u>(F19) Low Temperature Resistance</u></b>			
Nonbrillite after 3 min @ -67°F	ASTM D1329	pass/fail	Pass

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