



# COMPOUND DATA SHEET

Parker O-Ring & Engineered Seals Division, North America

## MATERIAL REPORT

Report Number: 94134 (\*125610)  
11/1/2013

**Title:** Evaluation of Parker Compound

**Elastomer Type:** Fluorocarbon (FFKM) FF582-90

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

**Color:** Black

**Recommended Temperature Range:** 5°F to 525°F

**Recommended For:** Aliphatic and aromatic hydrocarbons, chlorinated hydrocarbons, polar solvents (acetone, methylethylketone, dioxane), inorganic and organic acids, water and steam, high vacuum with minimal weight loss, petroleum oil, we/dry chlorine.

**Not Recommended For:** Fluorinated refrigerants (R11, R12, R13, R113, R114), uranium hexafluoride, molten metals, gaseous and alkali metals



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"The recording of false, fictitious, or fraudulent statements or entries in this report may be punishable  
as a felony under federal law."*

<b><u>Original Physical Properties</u></b>	<b><u>Test Method</u></b>	<b><u>Test Results</u></b>
Hardness, Shore A, pts.	ASTM D2240	90
Tensile Strength, psi	ASTM D1414	2862
Ultimate Elongation	ASTM D1414	113
Modulus at 25% Elongation	ASTM D1414	594
Modulus at 50% Elongation	ASTM D1414	1412
Modulus at 75% Elongation	ASTM D1414	2117
Modulus at 100% Elongation	ASTM D1414	2639
Specific Gravity	ASTM D297	1.87
<b>Compression Set</b>		
<b><u>70 hrs. @ 230°C</u></b>		
Percent of Original Deflection, max	ASTM D395 Method B	25
<b>Compression Set</b>		
<b><u>70 hrs. @ 250°C</u></b>		
Percent of Original Deflection, max	ASTM D395 Method B	N/T
<b>Fluid Immersion</b>		
<b><u>Steam, (336 hrs. @ 125°C)</u></b>		
Hardness Change, pts	ASTM D471	-5
Volume Change, %		+5
<b>Fluid Immersion</b>		
<b><u>Water, (336 hrs. @ 125°C)</u></b>		
Hardness Change, pts	ASTM D471	0
Volume Change, %		+5
<b>Fluid Immersion</b>		
<b><u>Steam, (70 hrs. @ 181°C)</u></b>		
Hardness Change, pts.	ASTM D471	-5
Volume Change, %		+5
<b>Fluid Immersion</b>		
<b><u>Water, (70 hrs. @ 181°C)</u></b>		
Hardness Change, pts.	ASTM D471	-3
Volume Change, %		+7
<b>Fluid Immersion</b>		
<b><u>Steam, (70 hrs. @ 260°C)</u></b>		
Hardness Change, pts.	ASTM D471	-10
Tensile Strength Change, psi		-33
Ultimate Elongation Change, psi		+27
Modulus at 25% Elongation Change, psi		-48
Modulus at 50% Elongation Change, psi		-51

Modulus at 75% Elongation Change, psi		-48
Modulus at 100% Elongation Change, psi		-44
Volume Change, %		+16

**Fluid Immersion**

**Water, (70 hrs. @ 260°C)**

Hardness Change, pts.	ASTM D471	-11
Tensile Strength Change, psi		-30
Ultimate Elongation Change, %		+30
Modulus at 25% Elongation Change, psi		-52
Modulus at 50% Elongation Change, psi		-54
Modulus at 75% Elongation Change, psi		-49
Modulus at 100% Elongation Change, psi		-45
Volume Change, %		+21

**Low Temperature (\*)**

TR-10, °C (°F)	ASTM D1329	-4°C (25°F)
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