



# COMPOUND DATA SHEET

Parker O-Ring & Engineered Seals Division United States

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## MATERIAL REPORT

DATE: 9/9/2016  
LTR: 117745 & 110770

**Title:** Evaluation of Parker compound FF504-80

**Elastomer Type:** Perfluoroelastomer (FFKM)

**Purpose:** To obtain typical test data

**Specification:** ASTM D2000 M1KK811 Z1 Z2 Z3 Z4  
Z1 = report heat aging of 70 hrs @ 250°C  
Z2 = report compression set 70 hrs @ 135°C (0.139" cross section)  
Z3 = report compression set 70 hrs @ 200°C (0.139" cross section)  
Z4 = report compression set 70 hrs @ 230°C (0.139" cross section)

**Color:** Green

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

**Recommended For:** Oils and greases made from petroleum or synthetic hydrocarbon base stock, silicone fluids, acids, bases, hot water, steam, alcohols, ozone and weathering, aromatic hydrocarbon fuels and solvents, chlorinated hydrocarbon solvents, aggressive polar solvent (MEK, acetone, etc.), automotive brake fluid, aircraft hydraulic fluids.

**Not recommended For:** Fluorinated refrigerant gases, perfluorinated ether fluids, molten alkali metals.

## Laboratory Test Report

<u>Original Physical Properties</u>	<u>Test Results</u>	<u>Spec Limits</u>	<u>Test Results</u>
Hardness, Shore A, pts.	ASTM D2240	80 ± 5	80
Tensile Strength, Mpa, min.	ASTM D412	11	23
Ultimate Elongation, % min	ASTM D412	125	224
<b>Compression Set (1/2" Buttons)</b>			
<b><u>22 hrs. @ 200°C (392°F)</u></b>			
Percent of Original Deflection, max	ASTM D395 Method B	25	11
<b>Compression Set (0.139" cross section)</b>			
<b><u>70 hrs. @ 135°C (275°F)</u></b>			
Percent of Original Deflection, max	ASTM D395 Method B		20
<b><u>70 hrs. @ 200°C (392°F)</u></b>			
Percent of Original Deflection, max	Method B		23
<b><u>70 hrs. @ 230°C (446°F)</u></b>			
Percent of Original Deflection, max	Method B		40
<b>Dry Heat Resistance</b>			
<b><u>70 hrs. @ 250°C (482°F) (Z1)</u></b>			
Hardness Change, Shore A pts.	ASTM D573	± 15	-1
Tensile Strength Change, %		± 30	+13
Ultimate Elongation Change, % max.		-50	-3
<b>Fluid Immersion</b>			
<b><u>IRM 903 Oil, 70 hrs, @ 150°C (302°F)</u></b>			
Volume Change, % max.	ASTM D471	+10	+2

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