



# COMPOUND DATA SHEET

Parker O-Ring & Engineered Seals Division, North America

## MATERIAL REPORT

LTR: 93341



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<b><u>Title:</u></b>	Evaluation of Parker Compound FF400-85
<b><u>Elastomer Type:</u></b>	Perfluoroelastomer (FFKM) FF400-85
<b><u>Purpose:</u></b>	To obtain typical test data
<b><u>Color:</u></b>	Black
<b><u>Recommended Temperature Range:</u></b>	-85°F to 525°F
<b><u>Recommended For:</u></b>	Aliphatic and aromatic hydrocarbons, chlorinated hydrocarbon, polar solvents (acetone, methylethylketone, dioxane), inorganic and organic acids, water and steam, high vacuum with minimal weight loss, petroleum oil, wet / dry chlorine
<b><u>Not Recommended For:</u></b>	Fluorinated refrigerants, uranium hexafluoride, molten metals, gaseous alkali metals
<b><u>Certifications:</u></b>	ISO 23936-2 RGD; ISO 23936-2 10% H2S Aging; NACE TM0187 50% H2S; TOTAL GS EP PVV 142 RGD

<u>Original Physical Properties</u>	<u>Test Method</u>	<u>Results</u>
Hardness, Shore A, pts	ASTM D2240	82
Tensile Strength, psi, Min	ASTM D1414	1354
Ultimate Elongation, % Min	ASTM D1414	188
Modulus at 100% Elongation, psi	ASTM D1414	844
Specific Gravity	ASTMD D297	1.85
<b><u>Compression Set - 70 hrs @ 200°C</u></b>		
Percent of Original Deflect, Max	ASTM D395 Method B	25
<b><u>Compression Set - 70 hrs @ 230°C</u></b>		
Percent of Original Deflect, Max	ASTM D395 Method B	27
<b><u>Compression Set - 70 hrs @ 250°C</u></b>		
Percent of Original Deflect, Max	ASTM D395 Method B	29
<b><u>Fluid Resistance</u></b>		
<b><u>Steam, (70 hrs @ 121°C)</u></b>		
Hardness Change, Shore A, pts	ASTM D471	+2
Tensile Strength Change, %		+11
Ultimate Elongation Change, %		+5
Modulus at 100% Elongation, psi		+9
Volume Change, %		0
<b><u>Fluid Resistance</u></b>		
<b><u>Diesel #2 (70 hrs @ 100°C)</u></b>		
Hardness Change, Shore A, pts	ASTM D471	-5
Tensile Strength Change, %		-25
Ultimate Elongation Change, %		+31
Modulus at 100% Elongation, psi		-23
Volume Change, %		+5
<b><u>Fluid Resistance</u></b>		
<b><u>Methanol #2 (70 hrs @ 23.9°C)</u></b>		
Hardness Change, Shore A, pts	ASTM D471	-2
Tensile Strength Change, %		-14
Ultimate Elongation Change, %		+23
Modulus at 100% Elongation, psi		-17
Volume Change, %		+1
<b><u>Low Temperature</u></b>		
TR-10, °C	ASTM D1329	-30
Tg by DSC, °C	ASTM E1356	-35