



MATERIAL REPORT

REPORT NUMBER:

DATE: 8/29/2000

TITLE: Evaluation of Parker Compound KB163-90 (21379)
PURPOSE: To obtain general information.

Recommended temperature limits: -25⁰F to 300/325⁰F

Recommended For

High temperature hydraulics

Petroleum based hydraulic oil, motor oil, transmission fluid,
grease

R134a

Water/glycol/steam

HFA, HFB, and HFC fluids

Ozone, aging, and weather resistance

Not Recommended For

Polar solvents (ketones and esters)

Strong acids

Chlorinated hydrocarbons

Auto and aircraft brake fluids



REPORT DATA

	Test Results
Original Physical Properties, ASTM D412, D2240	
Hardness, Shore A, pts.	88
Tensile Strength, psi	3219
Ultimate Elongation, %	107
Modulus @ 50%, psi	1552
Compression Set, ASTM D395 Method B (70 hrs. @ 302°F)	
Percent of Original Deflection (0.070 in C/S o-ring)	46
Percent of Original Deflection (0.103 in C/S o-ring)	42
Percent of Original Deflection (0.139 in C/S o-ring)	32
Percent of Original Deflection (0.210 in C/S o-ring)	23
Percent of Original Deflection (0.275 in C/S o-ring)	19
Percent of Original Deflection (plied)	22
Compression Set, ASTM D395 Method B (1000 hrs. @ 121°F)	
Percent of Original Deflection (0.070 in C/S o-ring)	72
Percent of Original Deflection (0.103 in C/S o-ring)	73
Percent of Original Deflection (0.139 in C/S o-ring)	73
Percent of Original Deflection (0.210 in C/S o-ring)	61
Percent of Original Deflection (0.275 in C/S o-ring)	48
Dry Heat Resistance, ASTM D573 (70 hrs. @ 302°F)	
Hardness Change, pts.	+3
Tensile Change, %	+22
Elongation Change, %	-14
Fluid Immersion, ASTM D471 ASTM #1 Oil, (70 hrs. @ 302°F)	
Hardness Change, pts.	+2
Tensile Change, %	+29
Elongation Change, %	0
Volume Change, %	-2
Fluid Immersion, ASTM D471 IRM 903 Oil, (70 hrs. @ 302°F)	
Hardness Change, pts.	-7
Tensile Change, %	+15
Elongation Change, %	+3
Volume Change, %	+8
Fluid Immersion, ASTM D471 Test 15W-40 Diesel Engine Oil, (1000 hrs. @ 257°F) Results	
Hardness Change, pts.	+3
Tensile Change, %	+13
Elongation Change, %	-28
Volume Change, %	+1



Compound Data Sheet

Parker O-Ring Division United States

Fluid Immersion, ASTM D471

Cool-Gard ELC, (1000 hrs. @ 257°F)

Hardness Change, pts.	+2
Tensile Change, %	+12
Elongation Change, %	-3
Volume Change, %	+2