



# MATERIAL REPORT



REPORT NUMBER:  
DATE: 6/14/2001

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**TITLE:** Evaluation of Parker Compound KA174-75 (21107)  
**PURPOSE:** To obtain general information.

Recommended temperature limits: -25<sup>0</sup>F to 300/325<sup>0</sup>F

### Recommended For

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

	<b>Test Results</b>
<b>Original Physical Properties, ASTM D1414, D2240</b>	
Hardness, Shore A, pts.	76
Tensile Strength, psi	2700
Ultimate Elongation, %	200
Modulus @ 100%, psi	1100
<b>Compression Set, ASTM D395 Method B Percent of Original Deflection</b>	
70 hrs. @ 302°F, 2-214 o-ring	41
70 hrs. @ 302°F, button	14
168 hrs. @ 302°F, 2-214 o-ring	60
<b>Dry Heat Resistance, ASTM D573 (70 hrs. @ 302°F)</b>	
Hardness Change, pts.	+10
Tensile Change, %	+7
Elongation Change, %	-11
<b>Dry Heat Resistance, ASTM D573 (70 hrs. @ 350°F)</b>	
Hardness Change, pts.	+10
Tensile Change, %	-7
Elongation Change, %	-46
<b>Dry Heat Resistance, ASTM D573 (3 months @ 300°F)</b>	
Hardness Change, pts.	+20
Tensile Change, %	-38
Elongation Change, %	-88
<b>Fluid Immersion, ASTM D471 ASTM #1 Oil, (70 hrs. @ 302°F)</b>	
Hardness Change, pts.	+1
Tensile Change, %	+2
Elongation Change, %	-4
Volume Change, %	+1
<b>Fluid Immersion, ASTM D471 ASTM #3 Oil, (70 hrs. @ 302°F)</b>	
Hardness Change, pts.	-7
Tensile Change, %	-6
Elongation Change, %	0
Volume Change, %	+23
<b>Fluid Immersion, ASTM D471 Test NO. 2 Diesel Fuel, (70 hrs. @ 302°F) Results</b>	
Hardness Change, pts.	-8
Tensile Change, %	-20
Elongation Change, %	0
Volume Change, %	+35



**Compound Data Sheet**  
**Parker O-Ring Division United States**

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**Fluid Immersion, ASTM D471**

**Distilled Water, (70 hrs. @ 212°F)**

Hardness Change, pts.	+4
Tensile Change, %	+4
Elongation Change, %	0
Volume Change, %	+3

**Ozone Resistance, ASTM D1171**

70 hrs., 100 pphm @ 100°F, 20% Stretch      No Cracks

**Low Temperature, ASTM D1329**

TR-10, °F (o-ring)      -7.6