



MATERIAL REPORT

REPORT NUMBER: KK2205

DATE: 8/22/95

TITLE: Evaluation of Parker Compound N1231-80
PURPOSE: To obtain general information.

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

Recommended For

Explosive Decompression Resistance

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



Compound Data Sheet

Parker O-Ring Division United States

REPORT DATA

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<u>Original Physical Properties</u>	N1231-80 <u>Results</u>
Hardness, Shore A, pts, 2	81
Tensile, Kg/cm, 2, min.	240
Elongation, %, min.	297
<u>Heat Aging</u>	
<u>70 Hrs. @ 150°C (302°F)</u>	
Hardness, Change, pts.	+4
Tensile, Change, %, max	-8.5
Elongation, Change, %	-20.2
<u>Compression Set</u>	
<u>70 Hrs. @ 150°C (302°F)</u>	
% of Original Deflection, max.	27.1
<u>ASTM Oil #1</u>	
<u>70 Hrs. @ 150°C (302°F)</u>	
Hardness, Change, pts	+3
Tensile, Change, %, max	+3.8
Elongation, Change, %, max	-7.1
Volume, Change, %	-1.3
<u>Sunisco 5GS Oil</u>	
<u>70 hrs. @ 150°C (302°F)</u>	
Hardness, Change, pts	-2
Tensile, Change, %, max	-1.8
Elongation, Change, %, max	-5.1
Volume, Change, %	+7.5
<u>ND8 Oil</u>	
<u>70 hrs. @ 150°C (302°F)</u>	
Hardness, Change, pts	+2
Tensile, Change, %, max	+6.1
Elongation, Change, %, max	-20.2
Volume, Change, %	-0.2
<u>Heat Age</u>	
<u>560 hrs. @ 120°C</u>	
Hardness, Change, pts	+4
Tensile, Change, %	+8.7
Elongation, %	-14.6



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Heat Age	
<u>560 hrs. @ 150°C</u>	N1231-80
Hardness, Change, pts	<u>Result</u>
Tensile, Change, %	+9
Elongation, %	+4.1
	-45.5
Heat Age	
<u>1000 hrs. @ 120°C</u>	
Hardness, Change, pts	+6
Tensile, Change, %	+2.1
Elongation, %	-17.7
Compression Set	
<u>70 hrs. @ 120°C</u>	28.9
% of Original Deflection	33.3
Compression Set	
<u>140 hrs. @ 120°C</u>	35.7
% of Original Deflection	38.9
Compression Set	
<u>140 hrs. @ 150°C</u>	71.4
% of Original Deflection	79.4
Compression Set	
<u>280 hrs. @ 120°C</u>	51.4
% of Original Deflection	55.6
Compression Set	
<u>280 hrs. @ 150°C</u>	84.3
% of Original Deflection	88.2
Compression Set	
<u>560 hrs. @ 120°C</u>	65.7
% of Original Deflection	67.6
Compression Set	
<u>560 hrs. @ 150°C</u>	
% of Original Deflection	91.4
Compression Set	
<u>1000 hrs. @ 120°C</u>	
% of Original Deflection	79