



# MATERIAL REPORT

REPORT NUMBER: KK1930  
DATE: 09/30/87

**TITLE:** Evaluation of Parker Compound V0894-90 to ASTM D2000  
3HK920 A1-10 B38 EF31 E078

**PURPOSE:** To determine if V0894-90 meets the requirements.

**CONCLUSION:** Compound V0894-90 meets the ASTM D2000 callout.

Recommended temperature limits: -15<sup>0</sup>F to 400<sup>0</sup>F

## Recommended For

Petroleum, mineral, and vegetable oils  
Silicone fluids  
Aromatic hydrocarbons (benzene, toluene)  
Chlorinated hydrocarbons  
High vacuum  
Ozone, weather, and aging resistance

## Not Recommended For

Hot water and steam  
Auto and aircraft brake fluids  
Amines  
Ketones  
Low molecular weight esters and ethers


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

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	ASTM D2000 3HK920 A1-10 B38 EF31 E078 Pass / Fail Limits	V0894-90 2-214 O- Ring Results
<u>Basic Physical Properties</u>		
Hardness	90 +/- 5	86
Tensile Strength, psi min	2031	2183
Elongation, % min	100	134
100% Modulus, psi	Not required	1567
Specific Gravity	Not required	2.30
<u>A1-10 Heat Aging, 70 HRS @ 250°C</u>		
Hardness Change, pts max	+10	+4
Tensile Change, % max	-25	-15.4
Elongation Change, % max	-25	-9.7
<u>B38 Compression Set, 22 HRS @ 200°C</u>		
% of Original Deflection, max	30	14.3
<u>EF31, ASTM Ref. Fuel C, 70 HRS @ 23°C</u>		
Hardness Change, pts	+/-5	-1
Tensile Change, % max	-25	-24.4
Elongation Change, % max	-20	-14.9
Volume Change, %	0 to +10	+2.5
<u>E078, Fluid Resistance, #101 Oil, 70 HRS @ 200°C</u>		
Hardness Change, pts	-15 to +5	-3
Tensile Change, % max	-40	-12.3
Elongation Change, % max	-20	-5.2
Volume Change, %	0 to +15	+9.2
<u>Fluid Resistance, Stauffer 7700, 70 HRS @ 200°C</u>		
Hardness Change, pts		-5
Tensile Change, %		-12.3
Elongation Change, %		-5.2
Volume Change, %		+14.4
<u>Basic Oil Immersion, ASTM #3 Oil, 70 HRS @ 150°C</u>		
volume change		+2.1
<u>Low Temperature Resistance, 5 HRS @ -25°C</u>		
Figure 8 Bend		Pass
<u>Low Temperature Resistance, TR-10 °C</u>		
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