



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: -15⁰F to 400⁰F

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



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>		-19