



MATERIAL REPORT

REPORT NUMBER: KK0443C

DATE: 03/26/74

TITLE: Evaluation of Parker Compound V0680-70 along with S0317-60 and S0355-75 using FDA approved materials.

PURPOSE: To secure general test data relative to the subject compounds in materials that would be typically used in food processing.

CONCLUSION: Test data contained in this report should be used as a general guide line, with selection of Parker compound depending upon media, and temperature criteria.

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, 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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ORIGINAL PHYSICALS

	<u>S0317-60</u>	<u>S0355-75</u>	<u>V0680-70</u>
Hardness, Shore A, pts.	70	85	92
Tensile Strength, psi	8.46 (1227)	14.0 (2025)	13.11 (1901)
Elongation, %	195	181	123

Fluid Immersion, Peanut

Oil, 70 HRS @ 212°F

Hardness Change, pts.	0	0	+5
Tensile Change, %	-10	-3	+33
Elongation Change, %	-12	-11	+6
Volume Change, %	+5.0	+3.3	+1.8

Fluid Immersion, Dark

Molasses, 70 HRS @ 212°F

Hardness Change, pts.	+3	-5	+5
Tensile Change, %	-9	-13	-3
Elongation Change, %	+4	-5	+19
Volume Change, %	+0.1	+0.8	+17.4

Fluid Immersion, Distilled

Water, 70 HRS @ 212°F

Hardness Change, pts.	0	-2	+11
Tensile Change, %	-6	-10	+14
Elongation Change, %	-4	-16	+15
Volume Change, %	+0.1	+1.2	+6.0

Fluid Immersion, Vinegar

1 week @ Room Temperature

Hardness Change, pts.	0	-2	-1
Tensile Change, %	-12	-5	0
Elongation Change, %	-6	-4	-2
Volume Change, %	+0.9	+5.3	+51.6

Fluid Immersion, Beer

1 week @ Room Temperature

Hardness Change, pts.	0	-2	+4
Tensile Change, %	+7	-1	0
Elongation Change, %	+6	+16	+14
Volume Change, %	+1.3	+1.7	+0.4

Fluid Immersion, Cola Syrup

1 week @ Room Temperature

Hardness Change, pts.	0	0	0
Tensile Change, %	-9	-3	-2
Elongation Change, %	-12	-7	+14
Volume Change, %	+0.6	+1.1	+1.0

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Heat Aged, 70 Hrs @ 212°F

Hardness Change, pts	+3	0	+3
Tensile Strength Change, %	-3	-1	+25
Elongation Change, %	-15	-11	0
Weight Change, %	-0.1	0	-0.1

Long Term Testing

Fluid Immersion, Cola Syrup

10 weeks @ Room Temperature

Hardness Change, pts.	+1	-4	-2
Tensile Change, %	-8	-1	-3
Elongation Change, %	+4	-7	+15
Volume Change, %	+1.9	+0.9	+0.7

Compression Set, ASTM D395

70 Hrs @ 275°F on 0.139" C.S.

% Original Deflection	14.7	14.7	17.6
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Compression Set, ASTM D395

70 Hrs @ 275°F on 0.139" C.S

% Original Deflection	14.7	5.9	17.6
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