



# MATERIAL REPORT

DATE: May 2000

**TITLE:** Evaluation of NSF 61 approved compound E1583-70 to ASTM D2000 line callout M3CA714 B35 B44 EA14 F19 G11 G21 Z1.

**PURPOSE:** To verify that Parker Compound E1583-70 meets or exceeds all phases of the above specification.

**CONCLUSION:** Parker Compound E1583-70 meets or exceeds all phases of the above specification.

Recommended temperature limits: -70°F to 250 °F

Recommended For

Potable water  
Hot water and steam  
Glycol based brake fluid  
Many organic and inorganic acids  
Cleaning agents, soda and potassium alkalis  
Phosphate –ester based hydraulic fluids  
Silicone oil and grease  
Polar solvents  
Ozone, Aging and weather resistance

Not Recommended For

Mineral oil products



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

**REPORT DATA**

	<u>Compound E1583-70</u>	<u>Spec.</u>
<b><u>Originals</u></b>		
Hardness, Durometer	69	70 +/- 5
Tensile Strength, Mpa	16.6	14 min
Modulus @ 100% Elongation, Mpa	2.2	2.0 min
Elongation, %	326	200 min
Specific Gravity	1.08	1.08 +/- 0.02
NSF 61 Approved (Z1)	Yes	Yes
<b><u>Heat Aged 70 hrs @ 125 C</u></b>		
Change in Hardness, pts	+2	+/-15
Change in Tensile Strength, %	-24	+/-30 max
Change in Elongation, %	-18	-50 max
<b><u>Compression Set 22 hrs @ 125 C</u></b>		
Compression Set, % (Plied Slabs)	16	70 max
<b><u>Compression Set 70 hrs @ 100 C</u></b>		
Compression Set, % (Plied Slabs)	19	50 max
<b><u>Aging in Distilled Water 70 hrs @ 100C</u></b>		
Change in Hardness, pts	-2	-5 to +5
Change in Tensile Strength, %	-8	-25 max
Change in Elongation, %	+1	-25 max
Change in Volume, %	+4.24	+/- 5
<b><u>Tear Strength</u></b>		
Die 'B' (kN/m)	45	26 min
Die 'C' (kN/m)	38	26 min
<b><u>Low Temperature Brittleness</u></b>		
Non-Brittle after 3 min @ -55 C	Pass	Pass
TR-10 (C)	-35.6	-33 or lower