COMPOUND DATA SHEET

Parker O-Ring & Engineered Seals Division Global Business Unit

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MATERIAL REPORT

October 2015

Title: Evaluation of Parker Compound

Elastomer Type: Ethylene Propylene (E1583-70)

Purpose: To obtain typical test data.

Specification: ASTM D2000 M3CA714 B35 B44 EA14 F19 G11 G21 Z1 Z2
Z1 = NSF 61 Approved
Z2 = Internally Lubricated
Z3 = TR-10

Color: Black

Recommended Temperature Range: -70°F to 250°F

Recommended For: Potable water, hot water & steam, glycol based brake fluid, many organic and inorganic acids, cleaning agents (soda & potassium alkalis), phosphate ester based hydraulic fluids, silicone oil, polar solvents, o-zone, aging, and weather resistance

Not Recommended For: Mineral oil products (oils, greases, and fuels)

REPORT DATA

Original Physical Properties	Test Method	Spec Limits	Results
Hardness, Shore A, pts.	ASTM D2240	70 ± 5	69
Tensile Strength, PSI (Mpa)	ASTM D412	2030 (14)	2407
Ultimate Elongation, %	ASTM D412	200	326
NSF 61 Approved (Z1)		Yes	Yes
Internally Lubricated (Z2)		Yes	Yes
Heat Age (Basic Requirement)			
70 hrs. @ 125°C			
Hardness Change, pts	ASTM D573	± 15	+2
Tensile Strength Change, %		± 30	-24
Ultimate Elongation Change, %		-50	-18
(B44) Compression Set (Plied)			
70 hrs. @ 100°C			
Percent of Original Deflection, Max	ASTM D395 Method B	50	19
(B35) Compression Set (Plied)			
22 hrs @ 125°C			
Percent of Original Deflection, Max	ASTM D395 Method B	70	16
(EA14) Fluid Immersion			
Water, 70 hrs @ 100°C			
Hardness Change, pts.	ASTM D471	± 5	-2
Tensile Strength Change, %		-25	-8
Ultimate Elongation Change, %		-25	+1
Volume Change, %		± 5	+4
(G11) Tear Resistance			
Die 'B' (kN/m)	ASTM D624	26	45
(G21) Tear Resistance			
Die 'C' (kN/m)	ASTM D624	26	38
(F19) Low Temperature Brittleness			
Non-brittle after 3 min @ -55°C	ASTM D2137	Pass	Pass
Low Temperature Resistance			
TR-10°C (Z3)	ASTM D1329	report	-47