



MATERIAL REPORT

REPORT NUMBER: KK2223

DATE: 01/06/97

TITLE: Evaluation of Parker Compound E3609-70 to ASTM D200 line callout M3CA 710 A25 EA14 F18 Z1 Z2 Z3 Z4 Z5.

PURPOSE: To verify that Parker Compound E3609-70 meets or exceeds all phases of the above specification.

CONCLUSION: Parker Compound E3609-70 meets or exceeds all phases of the above specification.

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

Recommended For

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



REPORT DATA

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	M3CA 710 A25	E3609-70
	EA14 F18 Z1-Z5	Platen
	Results	Results
<u>Original Physical Properties, ASTM D412</u>		
Hardness, Shore A, pts	65 to 75	70
Tensile Strength, psi, (MPa), min	1450 (10.0)	1508 (10.4)
Elongation, %, min (Z5)	150	179
<u>Heat Aging (70 Hrs. @ 125°C), ASTM D573</u>		
Hardness Change, pts, max	-5 to +5	+1
Tensile Strength Change, %, max	-20	-13.4
Elongation Change, %, max	-15	-6.7
<u>Compression Set (22 Hrs. @ 100°C), ASTM D395</u>		
Permanent Compression Set, %, max	60	3.6
<u>Heat Aging (70 Hrs. @ 100°C), ASTM D865</u>		
Hardness Change, pts, max	+10	+1
Tensile Strength Change, %, max (Z4)	-40	-29.5
Elongation Change, %, max	-40	-24.6
<u>Water Immersion (70 Hrs @ 100°C), ASTM D471</u>		
Hardness Change, pts	No Limit	-2
Volume Change, %	+1.0	+1.0
<u>Low Temperature Brittleness</u>		
3 min @ -50°C	Pass	Pass
<u>Z1, Compression Set (70 Hrs @ 150°C), ASTM D395</u>		
Deflection, % max	50	29.3
<u>Z2, Steam 70 Hrs @ 150°C, 2-214 O-Rings</u>		
Hardness Change, pts, max	+/- 10	-5
Tensile Strength Change, %, max (Z4)	-70	-56.3
Elongation Change, %, max	-30	-28.6
Volume Change, %	+/- 10	+5.3
<u>Z3, Heat Age (70 Hrs @ 100°C), ASTM D573</u>		
Hardness Change, pts, max	+/- 5	0
Tensile Strength Change, %, max (Z4)	+/- 20	+2.8
Elongation Change, %, max	+/- 20	-9.5