



MATERIAL REPORT

Report Number: KT1714

Date: 1/11/85



CONTACT US

TITLE: Evaluation of Parker Purple Chromassure Compound E0893-80 to ASTM D2000 line callout 2AA815 A13 EA14 F17.

PURPOSE: To verify that E0893-80 meets the above specification.

CONCLUSION: Parker Compound E0893-80 meets or exceeds all phases of the 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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| <u>ORIGINAL PHYSICALS</u> | ASTM D2000 <u>2AA 815, A13, EA14, F17</u> | PARKER COMPOUND <u>E0893-80</u> |
|--|--|------------------------------------|
| Hardness, Shore A, pts. | 80 ± 5 | 81 |
| Tensile Strength, psi. | 1500 | 2306 |
| Elongation, % | 150 | 160 |
| Modulus @ 100% | Report | 1480 |
| Specific Gravity | Report | 1.28 |
| <u>A13, HEAT AGE, 70 HRS. @ 158°F</u> | | |
| Hardness Change, pts. | ±15 | + 3 |
| Tensile Change, %, max. | ±30 | + 3.2 |
| Elongation Change, %, max. | -50 | -12.6 |
| <u>HEAT AGE, 70 HRS. @ 300°F</u> | | |
| Hardness Change, pts. | | 0 |
| Tensile Change, % | | +9 |
| Elongation Change, % | | -22 |
| <u>HEAT AGE, 22 HRS. @ 350°F</u> | | |
| Hardness Change, pts. | | 0 |
| Tensile Change, % | | 0 |
| Elongation Change, % | | -24 |
| <u>COMPRESSION SET, 2-214 O-RINGS, 70 HRS. @ 300°F</u> | | |
| % of Original Deflection | | 21 |
| <u>COMPRESSION SET, 2-214 O-RINGS, 22 HRS. @ 350°F</u> | | |
| % of Original Deflection | | 21 |
| <u>COMPRESSION SET, 2-214 O-RINGS, 70 HRS. @ 257°F</u> | | |
| % of Original Deflection | | 17 |
| <u>EA14, WATER, 70 HRS. @ 212°F</u> | | |
| Hardness Change, pts. | N.R. | -1 |
| Tensile Change, % | N.R. | 0 |
| Elongation Change, % | N.R. | +56 |
| Volume Change, %, max. | +10 | + 2.9 |



Compound Data Sheet
Parker O-Ring Division United States

| <u>WAGNER 21 B BRAKE FLUID</u> <u>22 HRS. @ 250°F</u> | <u>ASTM D2000</u> <u>2AA 815, A13, EA14, F17</u> | <u>PARKER COMPOUND</u> <u>E0893-80</u> |
|---|---|---|
| Hardness, Shore A, pts. | N.R. | -5 |
| Tensile Change, % | N.R. | +4 |
| Elongation Change, % | N.R. | 0 |
| Volume Change, % | N.R. | +6.4 |
| | | |
| <u>WAGNER 21 B BRAKE FLUID</u> <u>70 HRS. @ 300°F</u> | | |
| Hardness Change, pts. | N.R. | -4 |
| Tensile Change, % | N.R. | +6 |
| Elongation Change, % | N.R. | 0 |
| Volume Change, % | N.R. | +4.9 |
| | | |
| <u>WAGNER 21 B BRAKE FLUID</u> <u>168 HRS. @ R.T.</u> | | |
| Hardness Change, pts. | N.R. | 0 |
| Tensile Change, % | N.R. | +11 |
| Elongation Change, % | N.R. | + 4 |
| Volume Change, % | N.R. | + 1.0 |
| | | |
| <u>SAE PHOSPHATE ESTER TEST FLUID</u> <u>70 HRS. @ 250°F</u> | | |
| Hardness Change, pts. | N.R. | -8 |
| Tensile Change, % | N.R. | -7 |
| Elongation Change, % | N.R. | -8 |
| Volume Change, % | N.R. | +17.0 |
| | | |
| <u>Low Temperature Brittleness TR-10</u> | | -45°F |
| | | |
| <u>LOW TEMPERATURE</u> <u>F17, 3 min. @ -40°F</u> | | Pass |

N.R. - No Requirement