



MATERIAL REPORT

DATE: 01/04/00

TITLE: Evaluation of Parker's Compound NA151-70

CONCLUSION: Compound NA151-70 meets or exceeds all requirements of subject specification.

Recommended Temperature Range: -30 to 250F

Recommended for: petroleum oils, water (up to 212F),
Salt & Alkali solutions, weak acids

Not Recommended for: aromatic fuels, strong acids,
glycols, ozone, polar solvents

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REPORT DATA

| <u>Original Physical Properties, ASTM D1414, D2240</u> | <u>NA151-70 Test Results</u> |
|--|----------------------------------|
| Hardness, Shore A, pts. | 70 |
| Tensile Strength, psi | 2279 |
| Ultimate Elongation, % | 289 |
| Modulus @ 100%, psi | 629 |
| Compression Set, ASTM D395 Method B (70 hrs. @ 257°F) | |
| Percent of Original Deflection (0.070 in C/S o-ring) | 61 |
| Percent of Original Deflection (0.103 in C/S o-ring) | 55 |
| Percent of Original Deflection (0.139 in C/S o-ring) | 44 |
| Percent of Original Deflection (0.210 in C/S o-ring) | 33 |
| Percent of Original Deflection (0.275 in C/S o-ring) | 27 |
| Percent of Original Deflection (½" buttons) | 15 |
| Dry Heat Resistance, ASTM D573 (70 hrs. @ 257°F) | |
| Hardness Change, pts. | +10 |
| Tensile Change, % | -4 |
| Elongation Change, % | -45 |
| Fluid Immersion, ASTM D471 ASTM #1 Oil, (70 hrs. @ 302°F) | |
| Hardness Change, pts. | +3 |
| Tensile Change, % | +3 |
| Elongation Change, % | -22 |
| Volume Change, % | -4 |
| Fluid Immersion, ASTM D471 IRM 903 Oil, (70 hrs. @ 302°F) | |
| Hardness Change, pts. | -8 |
| Tensile Change, % | -5 |
| Elongation Change, % | -14 |
| Volume Change, % | +14 |
| Fluid Immersion, ASTM D471 Distilled Water, (70 hrs. @ 212°F) | |
| Hardness Change, pts. | -2 |
| Tensile Change, % | -14 |
| Elongation Change, % | -18 |
| Volume Change, % | +9 |
| Low Temperature, ASTM D1329 | |
| TR-10, °F | -14 |
| Low Temperature Brittleness, ASTM D2137 | |
| Nonbrittle after 3 min. @ -27°F | Passed |