



MATERIAL REPORT

REPORT NUMBER: KA1517
DATE: 11/29/88

TITLE: Evaluation of Parker compound 47-071 to Requirements of Specification MIL-R-7362 D, Type 1, Amendment 2.

PURPOSE: To document conformance of First Article testing.

CONCLUSION: Parker compound 47-071 meets the requirements of specification MIL-R-7362 D, Type 1, Amendment 2.

Recommended Temperature Range: -60 to 180F

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

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

Parker O-Ring Division
2360 Palumbo Drive
Lexington, Kentucky 40512
(859) 269-2351

REPORT DATA

Report Number: KA1517

<u>ORIGINAL PHYSICAL PROPERTIES</u>	MIL-R-7362D Type 1, Amendment 2 <u>SPECIFICATION</u>	Compound: 47--071 Size: 2-214 <u>O-RINGS</u>
Hardness, Shore A, pts.	65-75	71
Tensile Strength, psi.	1200 min.	1792
Elongation, % min	250	338
Specific Gravity	1.31± .02	1.32
 <u>AIR AGED, 70 HR @ 257°F</u>		
Hardness change, pts.	-0, +20	+10
Tensile change, % max.	-20	+10.3
Elongation change, % max.	-60	-42
 <u>COMPRESSION SET, 70 HRS. 257°F, AMS 3021 FLUID</u>		
% of original deflection, max.	50	39
 <u>AMS 3021 OIL AGING, 70 HRS. @ 257°F</u>		
Hardness change, pts.	± 10	No Change
Tensile change, % max.	-50	+ 2.1
Elongation change, % max	-60	-30
Volume change, %	2 to 15	+ 7.2
Cracking, diam., inches min.	1.75	None
 <u>TEMPERATURE RETRACTION (TR-10)</u>		
Original, °F, max.	-40	-43
After oil age, °F max.	-30	-38
 <u>CORROSION AND ADHESION, 14 DAYS @ 92% HUMIDITY @ 75°F ± 5°F</u>		
Aluminum	QQ-A-2 02 4	None
Brass	QQ-B-626	None
Bronze	QQ-P-750	Discoloration
Steel	MIL-S-18729	Slight Discoloration
 <u>COMPRESSION SET, 22 HRS. @ 257°F</u>		
Under 0.110 inch.	60	
Over 0.110 inch.	55	35.2

NOTE: All testing was Performed under the following conditions.

ROOM TEMPERATURE:	LOW	21°C	HIGH	22°C
BAROMETRIC PRESSURE:	LOW	30.09	HIGH	31.03
RELATIVE HUMIDITY	LOW	50	HIGH	53