



MATERIAL REPORT

REPORT NUMBER: KK2181a

DATE: 11/18/92

TITLE: Evaluation of Parker Compound N1206-70

PURPOSE: To obtain general information.

Recommended temperature limits: -40⁰F to 300/325⁰F

Recommended For

Low temperature

Petroleum based hydraulic oil, motor oil, transmission fluid,
grease

R134a

Water/glycol/steam

HFA, HFB, and HFC fluids

Ozone, aging, and weather resistance

Not Recommended For

Polar solvents (ketones and esters)

Strong acids

Chlorinated hydrocarbons

Auto and aircraft brake fluids



Compound Data Sheet

Parker O-Ring Division United States

REPORT DATA

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<u>ORIGINAL PHYSICAL PROPERTIES</u>	<u>PLATENS</u>	<u>PARKER N1206-70 O-RINGS</u>
Density (ISO 1183, Method A/ASTM D 297)	1.19	1.20
Hardness, International (ISO 48/ASTM D 1415)	69	67 (Shore A)
Hardness, Durometer A (ISO 868/ASTM D2250, instantaneous, plied-up specimen, Hand held durometer shall not be used.)	70	
Tensile Strength, min, MPa (psi) (ISO 37/ASTM D 412, Die C)	15.7 (2278)	13.6 (1970)
Elongation at Break, min. (ISO 37/ASTM D 412, Die C)	203	
Modulus@100% Elongation, min, MPa (psi) (ISO 37/ASTM D 412, Die C)	6.0 (870)	
Tear Strength, min kN/m (ppi) (ISO 34, Method B, procedure (a)/ ASTM D 624, Die C)	36 (206)	
Brittleness Point, max. (ISO 812, Type B specimen/ ASTM D 2137, Method A)	Pass	
Ozone Resistance, max (FLTM BP 101-01, Procedure A)	Rating 0	
Compression Set, max. (ISO 815/ASTM D 395, Method B except 25% compression, plied-up Type 1 specimens, 70 hrs. @ 150° ± 2° C)	24	29.4
HEAT AGED (ISO 188/ASTMD375, 150 ± 50 AIR CHANGES/h <u>168 HRS @ 150° ± 2° C</u>)		
Hardness Change, pts.	+4	
Tensile Strength Change, max	-2	
Elongation Change, max	-21	
HEAT AGED (ISO 188/ASTMD573, 150 ± 50 AIR CHANGES/h <u>168 HRS @ 125° ± 2° C</u>)		
Hardness Change, pts.	+2	
Tensile Strength Change, max	-3.3	
Elongation Change, max	-2.4	
Visual Evaluation :	No Tackiness or Cracks	
No surface tackiness or cracks when folded flat against itself.		



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IMMERSION IN OIL NO.1

(ISO 1817/ASTM D 471, 162 HRS @ 150° ± 2° C

Hardness Change, pts.	-1
Tensile Strength Change, max	+10
Elongation Change, max	+18
Volume Change	-1
Visual Evaluation:	No Tackiness or Cracks
No surface tackiness or cracks when folded flat against itself.	

IMMERSION IN OIL NO. 3

(ISO 1817/ASTM D 471, 162 HRS @ 150 ± 2° C

Hardness Change, pts.	-11
Tensile Strength Change, max	-25
Elongation Change, max	-17
Volume Change	+24
Visual Evaluation:	
No surface tackiness or cracks when folded flat against itself.	

IMMERSION IN REFRIGERANT -134A WITH PAG LUBRICANT (WSH-MIC231-A)

168 HRS @ 23° ± 2° C

Hardness Change, pts.	-5
Tensile Strength Change, max	-30
Elongation Change, max	-13
Volume Change	+4
Visual Evaluation:	No Tackiness or Cracks
No surface tackiness or cracks when folded flat against itself.	

IMMERSION IN SILICON FLUID (ESF-M99B112-A)

(ISO 1817/ASTM D 471, 168 HRS @ 23° ± 2° C

Hardness Change, pts.	-1
Tensile Strength Change, max	9.4
Elongation Change, max	-1.0
Volume Change	-1.0

LOW TEMPERATURE RETRACTION

(TR - 10,° C (°F) (ASTM D 1329)

-35.5 (-31.9)

PARKER
N1206-70
O-RINGS

FINISHED PART

ORIGINAL PROPERTIES

Density	1.20
(ISO 1183, Method A/ASTM D 297)	
Hardness, International	67 (Shore A)
(ISO 48/ASTM D 1415)	
Tensile Strength, min	13.6 (1970)
(ISO 37/ASTM D 412, Die C)	
Elongation at Break, min	298%

Parker O-Ring Division
2360 Palumbo Drive
Lexington, Kentucky 40509
(859) 269-2351



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(Test Method according to para 3.5.4)	
Modulus at 100% Elongation, min	3.14 (456)
(Test Method according to para 3.5.4)	
Compression Set, max.	29.4
(ISO 815/ASTM D 395, Method B except 25% compression, plied-up specimens, 70 hrs. @ 135° ± 2° C)	
HEAT AGED	
(ISO 188/ASTMD573, 150 ± 50 AIR CHANGES/h <u>1000 HRS @ 125° ± 2° C</u>)	
Hardness Change, pts.	+1
Tensile Strength Change, max	+23
Elongation Change, max	-32.6
Visual Evaluation:	No Tackiness or Cracks
No surface tackiness or cracks when folded flat against itself.	
IMMERSION IN REFRIGERANT -134A WITH PAG LUBRICANT (WSH-MIC231-A)	
<u>1000 HRS @ 23° ± 2° C</u>	
Hardness Change, pts.	-4
Tensile Strength Change, max	+4
Elongation Change, max	-8
Volume Change.	+9