



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



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.		



Compound Data Sheet
Parker O-Ring Division United States

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%

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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