Parker Hannifin Corporation
EPS Division
Tel: 800-233-3900
www.parker.com/eps

Technical Data Sheet
2200/ IP-9900-A75 / L5

Material: Nitrile NBR
Parker Material Code: 2200/IP-9900-A75/L5
Color: Black
Description: NBR Lip material has very good resistance to oil and gasoline. Superior resistance to petroleum based hydraulic fluids. Good resistance to hydrocarbon solvents. Very good resistance to alkalis and solvents.

TYPICAL PHYSICAL / MECHANICAL / THERMAL PROPERTIES

PROPERTY	*UNIT*	*TEST METHOD*	Typical Values
Hardness	Shore A	ASTM D2240	83
Tensile Strength at Break	psi	ASTM D412	1800
Modulus 50%	psi	ASTM D412	450
Modulus 100%	psi	ASTM D412	750
Elongation at Break	%	ASTM D412	300
Specific Gravity	-	ASTM D792	1.35
Compression Set 22 hours @ 212 °F	%	ASTM D395	18
Tear Strength – Die C	lbf/in	ASTM D624	200
Glass Transition Temperature	°F	ASTM D3418	-18
Coefficient of Friction	-	ASTM D1894	0.76
Service Temperature Range	°F	Parker Internal	-18 to 258

Notes:

* We emphasize that this tabulation should be used as a guide only. It is based primarily on laboratory and service tests but does not consider all variables that can be encountered in actual use. Therefore, it is always advisable to test the material under actual service conditions before specification. If this is not practical, tests should be devised that simulate service conditions as closely as possible.
* Parker EPS Division also offers unique material blends and recipes along with a wide variety of other filler combinations and colors to enhance seal performance in the most extreme application needs. For guidance on material selection for extreme applications, please contact an EPS Division Application Engineer at 800-233-3900.
* [1]Samples are from Material Validation lot. Values may vary from lot to lot.

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FLUID COMPATIBILITY[1]

70 HRS @ Room Temperature

Media	*Test Method*	*Shore A*	*Modulus 50% / 100% (psi)*	*Ultimate Tensile (psi)*	*Elongation (%)*	*Weight Change*	*Volume Change*
Fuel A	ASTM D471	82	444 / 720	1733	301	0%	0%
Fuel B		64	249 / 473	1199	257	12%	20%
Fuel C		73	229 / 450	1890	188	1%	2%
Methanol		67	288 / 527	1424	234	5%	9%
Jet Fuel A		80	431 / 711	1804	306	1%	2%

168 HRS @ 212 °F

Media	*Test Method*	*Shore A*	*Modulus 50% / 100% (psi)*	*Ultimate Tensile (psi)*	*Elongation (%)*	*Weight Change*	*Volume Change*
IRM 901	ASTM D471	85	660 / 1114	1114	217	-4%	-5%
IRM 903		80	436 / 784	1896	248	2%	4%
Mil-H-5606		76	388 / 739	1692	222	2%	4%
Jet Oil II		74	349 / 653	1719	252	6%	8%
Stauffer 7700		73	356 / 665	1733	239	6%	10%
Rando HD32		85	659 / 1146	2065	240	-3%	-4%
EAL 224H		82	482 / 839	1847	264	-3%	-3%
97% Ethylene Glycol		79	432 / 779	1824	246	2%	3%
Distilled Water		77	429 / 761	1828	263	6%	8%
Oven Air Age		90	834 / 1380	2216	224	-3%	-4%
Super 46		85	673 / 1154	2012	233	-4%	-4%

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