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

Technical Data Sheet
5489/ IP-9905-A90 / L89

Material: FKM
Parker Material Code: 5489/IP-9905-A90/L89
Color: Black
Description: FKM lip material offers outstanding resistance to high heat. Excellent resistance to oil, gasoline, petroleum hydraulic fluids and hydrocarbon solvents. Very good impermeability to gases and vapors. Very good resistance to flame, weather, oxygen, ozone and sunlight. Very little resistance to oxygenated solvents. Poor tear resistance. Improved steam resistance.

TYPICAL PHYSICAL / MECHANICAL / THERMAL PROPERTIES

PROPERTY	*UNIT*	*TEST METHOD*	Typical Values
Hardness	Shore A	ASTM D2240	91
Tensile Strength at Break	psi	ASTM D412	1650
Modulus 50%	psi	ASTM D412	850
Modulus 100%	psi	ASTM D412	1250
Elongation at Break	%	ASTM D412	160
Specific Gravity	-	ASTM D792	1.90
Compression Set 22 hours @ 212 °F	%	ASTM D395	18
Tear Strength – Die C	lbf/in	ASTM D624	150
Glass Transition Temperature	°F	ASTM D3418	10
Coefficient of Friction	-	ASTM D1894	0.340
Service Temperature Range	°F	Parker Internal	10 to 400

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	92	823 / 1350	2042	170	0%	0%
Fuel B		92	811 / 1199	1645	174	0%	1%
Fuel C		90	789 / 1172	1596	172	1%	1%
Methanol		85	581 / 947	1475	201	2%	4%
Jet Fuel A		92	868 / 1276	1691	163	0%	0%

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	86	736 / 1164	1980	179	0%	0%
IRM 903		87	762 / 1193	1626	153	0%	0%
Mil-H-5606		87	699 / 1023	1465	186	1%	1%
Jet Oil II		88	750 / 1140	1625	187	4%	6%
Stauffer 7700		88	738 / 1112	1494	179	0%	1%
Rando HD32		91	825 / 1240	1848	177	0%	0%
EAL 224H		88	822 / 1290	1898	180	0%	0%
97% Ethylene Glycol		91	750 / 1019	1437	210	1%	1%
Distilled Water		87	778 / 1052	1336	166	4%	6%
Oven Air Age		90	849 / 1340	1909	165	0%	0%
Super 46		88	784 / 1202	1753	170	3%	6%

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