



ASTM D2000 M2 HK814 A1-10 B38 EF31 E078

# Imperial FKM 90 ShA O-rings

Fluorocarbon Rubber

FKM O-rings have excellent chemical resistance and can be used at temperature range of between -15°C and 200°C, making them highly suited for applications involving high temperatures. This O-ring material boasts a hardness rating of 90 ShA, which is beneficial in applications in which sealing pressure is high.

The terms FPM, FKM and Viton® can lead to incorrect interpretations. These designations stand for one single base material: fluorocarbon rubber. Viton® however is the registered trademark of the Chemours company.

RS Components is also able to supply specially compounded FKM O-rings meeting Norsok M710, FDA, USP Class VI, UL94 V0, EN549, Viton® A, B, G, GF, GLT, GFLT, ETP standards on special request. Please contact us for further information.

*Colour: Black*

*Operating temperature range: -15°C to 200°C*

Physical Property	Test Method	Units	Typical Values
Hardness	ASTM D 2240	Shore A	91
Tensile Strength	ASTM D 412	Mpa	14
Elongation	ASTM D 412	%	110
Specific Gravity		g/cm <sup>3</sup>	1.87 ±0.03
Compression Set 22h / 200°C	ASTM D 395 B	%	16

Aging Property	Test Method	Time (h)	Temperature (°C)	Hardness	Tensile Strength (%)	Ultimate Elongation (%)	Volume (%)
Air	ASTM D 573	70	250	1	-6	-10	-
ASTM IRM Oil 903	ASTM D 471	70	150				3
ASTM 101 Service Liquid	ASTM D 471	70	200	-8	-16	-13	14

ASTM Fuel C	ASTM D 471	70	23	-5	-17	-18	3
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**Chemical resistance:**

- Mineral oil and grease, ASTM oil No. 1, and IRM 902 and IRM 903 oils
- Non-flammable hydraulic fluids (HFD)
- Silicone oil and grease
- Mineral and vegetable oil and grease
- Aliphatic hydrocarbons (butane, propane, natural gas)
- Aromatic hydrocarbons (benzene, toluene)
- Chlorinated hydrocarbons (trichloroethylene and carbon tetrachloride)
- Gasoline (including high alcohol content)
- High vacuum
- Very good ozone, weather and aging resistance

**Not compatible with:**

- Glycol based brake fluids
- Ammonia gas, amines, alkalis
- Superheated steam
- Low molecular weight organic acids (formic and acetic acids)

RS Article Number	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		Standard Reference
	Internal Diameter	ID ± Tolerance	Cross Section	CS ± Tolerance	Internal Diameter	ID ± Tolerance	Cross Section	CS ± Tolerance	Internal Diameter	Cross Section	
2557556	3.68	0.14	1.78	0.08	0.145	0.006	0.07	0.003	5/32	1/16	AS568-7 and BS 1806-7
2557557	4.47	0.15	1.78	0.08	0.176	0.006	0.07	0.003	11/64	1/16	AS568-8 and BS 1806-8
2557558	5.28	0.15	1.78	0.08	0.208	0.006	0.07	0.003	7/32	1/16	AS568-9 and BS 1806-9
2557559	7.65	0.17	1.78	0.08	0.301	0.007	0.07	0.003	5/16	1/16	AS568-11 and BS 1806-11
2557560	10.82	0.2	1.78	0.08	0.426	0.008	0.07	0.003	7/16	1/16	AS568-13 and BS 1806-13

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557561	15.6	0.23	1.78	0.08	0.614	0.009	0.07	0.003	39/64	1/16	AS568-16 and BS 1806-16
2557562	21.95	0.28	1.78	0.08	0.864	0.011	0.07	0.003	7/8	1/16	AS568-20 and BS 1806-20
2557563	23.52	0.29	1.78	0.08	0.926	0.011	0.07	0.003	15/16	1/16	AS568-21 and BS 1806-21
2557565	25.12	0.3	1.78	0.08	0.989	0.012	0.07	0.003	1	1/16	AS568-22 and BS 1806-22
2557566	26.7	0.31	1.78	0.08	1.051	0.012	0.07	0.003	1 1/16	1/16	AS568-23 and BS 1806-23
2557567	28.3	0.33	1.78	0.08	1.114	0.013	0.07	0.003	1 1/8	1/16	AS568-24 and BS 1806-24
2557568	29.87	0.34	1.78	0.08	1.176	0.013	0.07	0.003	1 3/16	1/16	AS568-25 and BS 1806-25
2557569	31.47	0.35	1.78	0.08	1.239	0.014	0.07	0.003	1 15/64	1/16	AS568-26 and BS 1806-26
2557571	37.82	0.4	1.78	0.08	1.489	0.016	0.07	0.003	1 31/64	1/16	AS568-29 and BS 1806-29
2557572	41	0.42	1.78	0.08	1.614	0.017	0.07	0.003	1 39/64	1/16	AS568-30 and BS 1806-30
2557573	47.35	0.46	1.78	0.08	1.864	0.018	0.07	0.003	1 55/64	1/16	AS568-32 and BS 1806-32
2557574	53.7	0.51	1.78	0.08	2.114	0.02	0.07	0.003	2 7/64	1/16	AS568-34 and BS 1806-34

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557575	94.97	0.79	1.78	0.08	3.739	0.031	0.07	0.003	3 3/4	1/16	AS568-44 and BS 1806-44
2557639	11.89	0.2	1.98	0.08	0.468	0.008	0.078	0.003	15/32	5/64	BS 1806-906
2557576	5.23	0.15	2.62	0.09	0.206	0.006	0.103	0.004	13/64	3/32	AS568-107 and BS 1806-107
2557577	6.02	0.16	2.62	0.09	0.237	0.006	0.103	0.004	15/64	3/32	AS568-108 and BS 1806-108
2557578	12.37	0.21	2.62	0.09	0.487	0.008	0.103	0.004	31/64	3/32	AS568-112 and BS 1806-112
2557579	15.54	0.23	2.62	0.09	0.612	0.009	0.103	0.004	5/8	3/32	AS568-114 and BS 1806-114
2557638	15.88	0.23	2.62	0.09	0.625	0.009	0.103	0.004	5/8	3/32	BS 1806-809
2557580	17.12	0.24	2.62	0.09	0.674	0.009	0.103	0.004	43/64	3/32	AS568-115 and BS 1806-115
2557581	20.3	0.27	2.62	0.09	0.799	0.011	0.103	0.004	51/64	3/32	AS568-117 and BS 1806-117
2557582	23.47	0.29	2.62	0.09	0.924	0.011	0.103	0.004	59/64	3/32	AS568-119 and BS 1806-119
2557583	25.07	0.3	2.62	0.09	0.987	0.012	0.103	0.004	1	3/32	AS568-120 and BS 1806-120
2557584	31.42	0.35	2.62	0.09	1.237	0.014	0.103	0.004	1 15/64	3/32	AS568-124 and BS 1806-124
2557585	32.99	0.36	2.62	0.09	1.299	0.014	0.103	0.004	1 5/16	3/32	AS568-125 and BS 1806-125
2557587	34.59	0.37	2.62	0.09	1.362	0.015	0.103	0.004	1 23/64	3/32	AS568-126 and BS 1806-126

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557588	36.17	0.38	2.62	0.09	1.424	0.015	0.103	0.004	1 7/16	3/32	AS568-127 and BS 1806-127
2557589	40.94	0.42	2.62	0.09	1.612	0.017	0.103	0.004	1 5/8	3/32	AS568-130 and BS 1806-130
2557590	42.52	0.43	2.62	0.09	1.674	0.017	0.103	0.004	1 11/16	3/32	AS568-131 and BS 1806-131
2557591	44.12	0.44	2.62	0.09	1.737	0.017	0.103	0.004	1 3/4	3/32	AS568-132 and BS 1806-132
2557593	45.69	0.45	2.62	0.09	1.799	0.018	0.103	0.004	1 13/16	3/32	AS568-133 and BS 1806-133
2557594	48.9	0.47	2.62	0.09	1.925	0.019	0.103	0.004	1 59/64	3/32	AS568-135 and BS 1806-135
2557595	72.69	0.64	2.62	0.09	2.862	0.025	0.103	0.004	2 7/8	3/32	AS568-150 and BS 1806-150
2557596	82.22	0.71	2.62	0.09	3.237	0.028	0.103	0.004	3 1/4	3/32	AS568-152 and BS 1806-152
2557597	88.57	0.75	2.62	0.09	3.487	0.03	0.103	0.004	3 1/2	3/32	AS568-153 and BS 1806-153
2557598	120.32	0.96	2.62	0.09	4.737	0.038	0.103	0.004	4 3/4	3/32	AS568-158 and BS 1806-158
2557599	196.52	1.47	2.62	0.09	7.737	0.058	0.103	0.004	7 3/4	3/32	AS568-170 and BS 1806-170
2557600	5.94	0.16	3.53	0.1	0.234	0.006	0.139	0.004	15/64	1/8	AS568-202 and BS 1806-202

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557601	18.64	0.25	3.53	0.1	0.734	0.01	0.139	0.004	3/4	1/8	AS568-210 and BS 1806-210
2557602	20.22	0.27	3.53	0.1	0.796	0.011	0.139	0.004	51/64	1/8	AS568-211 and BS 1806-211
2557603	21.82	0.28	3.53	0.1	0.859	0.011	0.139	0.004	55/64	1/8	AS568-212 and BS 1806-212
2557604	23.39	0.29	3.53	0.1	0.921	0.011	0.139	0.004	15/16	1/8	AS568-213 and BS 1806-213
2557605	24.99	0.3	3.53	0.1	0.984	0.012	0.139	0.004	1	1/8	AS568-214 and BS 1806-214
2557606	26.57	0.31	3.53	0.1	1.046	0.012	0.139	0.004	1 1/16	1/8	AS568-215 and BS 1806-215
2557607	28.17	0.32	3.53	0.1	1.109	0.013	0.139	0.004	1 7/64	1/8	AS568-216 and BS 1806-216
2557608	31.34	0.35	3.53	0.1	1.234	0.014	0.139	0.004	1 15/64	1/8	AS568-218 and BS 1806-218
2557610	32.92	0.36	3.53	0.1	1.296	0.014	0.139	0.004	1.3125	1/8	AS568-219 and BS 1806-219
2557611	40.87	0.42	3.53	0.1	1.609	0.017	0.139	0.004	1 5/8	1/8	AS568-223 and BS 1806-223
2557612	44.04	0.44	3.53	0.1	1.734	0.017	0.139	0.004	1 47/64	1/8	AS568-224 and BS 1806-224
2557613	47.22	0.46	3.53	0.1	1.859	0.018	0.139	0.004	1.875	1/8	AS568-225 and BS 1806-225

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557614	50.39	0.48	3.53	0.1	1.984	0.019	0.139	0.004	2	1/8	AS568-226 and BS 1806-226
2557615	53.57	0.51	3.53	0.1	2.109	0.02	0.139	0.004	2 1/8	1/8	AS568-227 and BS 1806-227
2557616	56.74	0.53	3.53	0.1	2.234	0.021	0.139	0.004	2 15/64	1/8	AS568-228 and BS 1806-228
2557617	59.92	0.55	3.53	0.1	2.359	0.022	0.139	0.004	2 23/64	1/8	AS568-229 and BS 1806-229
2557618	63.09	0.57	3.53	0.1	2.484	0.022	0.139	0.004	2 31/64	1/8	AS568-230 and BS 1806-230
2557619	66.27	0.59	3.53	0.1	2.609	0.023	0.139	0.004	2 39/64	1/8	AS568-231 and BS 1806-231
2557620	69.44	0.62	3.53	0.1	2.734	0.024	0.139	0.004	2 47/64	1/8	AS568-232 and BS 1806-232
2557622	72.62	0.64	3.53	0.1	2.859	0.025	0.139	0.004	2 7/8	1/8	AS568-233 and BS 1806-233
2557623	78.97	0.68	3.53	0.1	3.109	0.027	0.139	0.004	3 7/64	1/8	AS568-235 and BS 1806-235
2557624	82.14	0.7	3.53	0.1	3.234	0.028	0.139	0.004	3 1/4	1/8	AS568-236 and BS 1806-236
2557625	88.49	0.75	3.53	0.1	3.484	0.03	0.139	0.004	3 1/2	1/8	AS568-238 and BS 1806-238
2557626	91.67	0.77	3.53	0.1	3.609	0.03	0.139	0.004	3 5/8	1/8	AS568-239 and BS 1806-239

	Millimetres (mm)				Inches (")				Nominal (Inch dimensions)		
2557627	94.84	0.79	3.53	0.1	3.734	0.031	0.139	0.004	3 3/4	1/8	AS568-240 and BS 1806-240
2557628	98.02	0.81	3.53	0.1	3.859	0.032	0.139	0.004	3 7/8	1/8	AS568-241 and BS 1806-241
2557629	101.19	0.83	3.53	0.1	3.984	0.033	0.139	0.004	4	1/8	AS568-242 and BS 1806-242
2557630	107.54	0.88	3.53	0.1	4.234	0.035	0.139	0.004	4 15/64	1/8	AS568-244 and BS 1806-244
2557631	110.72	0.9	3.53	0.1	4.359	0.035	0.139	0.004	4 3/8	1/8	AS568-245 and BS 1806-245
2557632	117.07	0.94	3.53	0.1	4.609	0.037	0.139	0.004	4 39/64	1/8	AS568-247 and BS 1806-247
2557633	158.34	1.22	3.53	0.1	6.234	0.048	0.139	0.004	6 15/64	1/8	AS568-259 and BS 1806-259
2557634	164.69	1.26	3.53	0.1	6.484	0.05	0.139	0.004	6 1/2	1/8	AS568-260 and BS 1806-260
2557635	50.17	0.48	5.33	0.13	1.975	0.019	0.21	0.005	2	3/16	AS568-329 and BS 1806-329
2557636	62.87	0.57	5.33	0.13	2.475	0.022	0.21	0.005	2 15/32	3/16	AS568-333 and BS 1806-333