



Metric Nitrile 70 ShA Oilseals

Nitrile / NBR / Buna-N

Nitrile is the most cost effective and commonly available Oilseal material. Commonly used in driveshafts, crankshafts and hydraulic cylinders where a rotating shaft is lubricated by oil or grease. NBR is good for applications where the Oilseal requires resistance to lubrication oils, hydraulic fluids and grease. Nitrile Oilseals are not suitable for use with brake oil, phosphoric ester and ester base.

Colour: Black

Operating temperature range: -20°C to 90°C

Please see page 3 onwards for sizes.

Physical Property	Test Method	Units	Typical Values
Hardness	ASTM D 2240	Shore A	70 ±5
Tensile Strength	ASTM D 412 C	MPa	18.9
Elongation	ASTM D 412 C	%	438
Specific Gravity	ASTM D 297	g/cm ³	1.25 ± 0.03
Compression Set 22h / 200°C	ASTM D 395 B	%	10
Tear Resistance	ASTM D 624 B	N/mm	58
Low Temperature Resistance	ASTM D 2137 A	°C	-40

Aging Property	Test Method	Time (h)	Temperature (°C)	Hardness	Tensile Strength (%)	Ultimate Elongation (%)	Volume (%)
Air	ASTM D 573	70	100	+1	+4	-11	
ASTM Oil No. 1	ASTM D 471	70	100	+3	+3	-14	-3
ASTM Oil 903	ASTM D 471	70	100	-2	-3	-18	+6
Fuel A	ASTM D 471	70	23	0	-9	-17	+0.2
Fuel B	ASTM D 471	70	23	-14	-34	-33	+23
Water	ASTM D 471	70	100	-3			+5

Chemical resistance

- Many hydrocarbons
- Fats
- Oils & Gasoline
- Petroleum based hydraulic fluid (HFD-R)

Not compatible with:

- Ozone
- Esters
- Retones
- Aldehydes
- Chlorinated
- Nitro Hydrocarbons



Single Lip Oil Seal Profile

Tolerance Chart:

<i>Press-Fit Allowance</i>		
Bore Diameter (mm)	Case	Permissible Eccentricity
Up to 50	+0.15 - +0.30	0.25
Over 50 to 80	+0.20- +0.35	0.35
Over 80 to 120	+0.20- +0.35	0.5
Over 120 to 180	+0.25- +0.45	0.65
Over 180 to 300	+0.25- +0.45	0.8
Over 300 to 500	+0.30- +0.5	1.0

<i>House Tolerance</i>		<i>Shaft Tolerance</i>	
Bore Diameter (mm)	Bore Tolerance	Shaft Diameter (mm)	Tolerance
Over 6 to 10	+0.022/-0.000	Over 3 to 6	0/-0.075
Over 10 to 18	+0.027/-0.000	Over 6 to 10	0/-0.090
Over 18 to 30	+0.033/-0.000	Over 10 to 18	0/-0.110
Over 30 to 50	+0.039/-0.000	Over 18 to 30	0/-0.130
Over 50 to 80	+0.046/-0.000	Over 30 to 50	0/-0.160
Over 80 to 120	+0.054/-0.000	Over 50 to 80	0/-0.190
Over 120 to 180	+0.063/-0.000	Over 80 to 120	0/-0.220
Over 180 to 250	+0.072/-0.000	Over 120 to 180	0/-0.250
Over 250 to 315	+0.081/-0.000	Over 180 to 250	0/-0.290
Over 315 to 400	+0.089/-0.000	Over 250 to 315	0/-0.320
Over 400 to 500	+0.097/-0.000	Over 315 to 400	0/-0.360

MPN	Millimetres (mm)			Inches (")		
	Internal Diameter	Outside Diameter	Height	Internal Diameter	Outside Diameter	Height
2263759	25	40	7	0.984	1.575	0.276
2263787	30	62	7	1.181	2.441	0.276
2263745	20	42	7	0.787	1.654	0.276
2263784	30	55	7	1.181	2.165	0.276
2263760	25	42	7	0.984	1.654	0.276
2263803	35	62	7	1.378	2.441	0.276
2263699	10	26	7	0.394	1.024	0.276
2263705	12	28	7	0.472	1.102	0.276
2263771	28	47	5	1.102	1.85	0.197
2263813	40	52	7	1.575	2.047	0.276
2263753	25	35	7	0.984	1.378	0.276
2263765	25	52	7	0.984	2.047	0.276
2263896	80	100	10	3.15	3.937	0.394
2263833	45	65	10	1.772	2.559	0.394
2263777	30	47	7	1.181	1.85	0.276
2263715	15	32	7	0.591	1.26	0.276
2263832	45	62	8	1.772	2.441	0.315
2263773	30	40	7	1.181	1.575	0.276
2263817	40	60	10	1.575	2.362	0.394
2263819	40	62	7	1.575	2.441	0.276
2263854	50	80	10	1.969	3.15	0.394
2263762	25	47	7	0.984	1.85	0.276
2263876	60	90	10	2.362	3.543	0.394

2263884	6	16	7	0.236	0.63	0.276
2263782	30	52	7	1.181	2.047	0.276
2263838	45	72	8	1.772	2.835	0.315
2263823	40	80	10	1.575	3.15	0.394
2263746	20	47	7	0.787	1.85	0.276
2263794	35	47	7	1.378	1.85	0.276
2263890	70	90	10	2.756	3.543	0.394
2263740	20	35	7	0.787	1.378	0.276
2263712	15	26	7	0.591	1.024	0.276
2263848	50	65	8	1.969	2.559	0.315
2263798	35	52	7	1.378	2.047	0.276
2263755	25	37	7	0.984	1.457	0.276
2263852	50	72	8	1.969	2.835	0.315
2263875	60	85	8	2.362	3.346	0.315
2263815	40	55	7	1.575	2.165	0.276
2263874	60	80	8	2.362	3.15	0.315
2263882	65	90	10	2.559	3.543	0.394
2263881	65	85	10	2.559	3.346	0.394
2263847	4	12	6	0.157	0.472	0.236
2263839	45	75	10	1.772	2.953	0.394
2263747	22	32	7	0.866	1.26	0.276
5ROS45X60X7A21N	45	60	7	1.772	2.362	0.276
2263872	60	75	8	2.362	2.953	0.315
2263886	70	100	10	2.756	3.937	0.394
2263864	55	80	10	2.165	3.15	0.394

2263697	10	22	7	0.394	0.866	0.276
2263891	75	100	10	2.953	3.937	0.394
2263749	22	40	7	0.866	1.575	0.276
2263735	20	30	5	0.787	1.181	0.197
2263772	28	47	7	1.102	1.85	0.276
5ROS50X80X8A21N	50	80	8	1.969	3.15	0.315
2263873	60	80	10	2.362	3.15	0.394
2263880	65	80	8	2.559	3.15	0.315
2263820	40	68	10	1.575	2.677	0.394
2263831	45	62	7	1.772	2.441	0.276
2263791	32	52	7	1.26	2.047	0.276
2263775	30	42	7	1.181	1.654	0.276
2263716	15	35	7	0.591	1.378	0.276
2263863	55	72	8	2.165	2.835	0.315
2263802	35	62	10	1.378	2.441	0.394
2263866	55	80	8	2.165	3.15	0.315
2263737	20	30	7	0.787	1.181	0.276
2263829	45	60	8	1.772	2.362	0.315
2263780	30	50	10	1.181	1.969	0.394
2263830	45	62	10	1.772	2.441	0.394
2263700	12	19	5	0.472	0.748	0.197
2263726	17	35	7	0.669	1.378	0.276
2263897	8	16	7	0.315	0.63	0.276
2263855	50	90	9	1.969	3.543	0.354
2263790	32	47	7	1.26	1.85	0.276

2263793	35	45	7	1.378	1.772	0.276
2263707	14	22	4	0.551	0.866	0.157
2263868	55	90	10	2.165	3.543	0.394
2263694	10	18	6	0.394	0.709	0.236
2263711	15	25	5	0.591	0.984	0.197
2263738	20	32	7	0.787	1.26	0.276
2263842	48	62	8	1.89	2.441	0.315
2263816	40	55	8	1.575	2.165	0.315
2263701	12	22	4	0.472	0.866	0.157
2263883	65	95	10	2.559	3.74	0.394
2263899	8	22	7	0.315	0.866	0.276
2263834	45	65	8	1.772	2.559	0.315
2263758	25	40	5	0.984	1.575	0.197
2263857	52	72	8	2.047	2.835	0.315
2263879	65	100	10	2.559	3.937	0.394
2263850	50	68	8	1.969	2.677	0.315
2263776	30	47	10	1.181	1.85	0.394
2263768	28	40	7	1.102	1.575	0.276
2263804	35	72	10	1.378	2.835	0.394
2263825	42	55	8	1.654	2.165	0.315
2263898	8	18	5	0.315	0.709	0.197
2263748	22	35	7	0.866	1.378	0.276
2263826	42	62	8	1.654	2.441	0.315
2263814	40	52	8	1.575	2.047	0.315
2263767	28	38	7	1.102	1.496	0.276

2263739	20	35	6	0.787	1.378	0.236
2263751	24	40	7	0.945	1.575	0.276
2263734	20	28	6	0.787	1.102	0.236
2263818	40	62	10	1.575	2.441	0.394
2263774	30	42	5.7	1.181	1.654	0.224
2263808	38	52	7	1.496	2.047	0.276
2263799	35	55	10	1.378	2.165	0.394
2263894	75	95	10	2.953	3.74	0.394
2263807	38	50	7	1.496	1.969	0.276
2263889	70	85	8	2.756	3.346	0.315
2263801	35	56	10	1.378	2.205	0.394
2263827	45	58	7	1.772	2.283	0.276
2263728	18	28	7	0.709	1.102	0.276
2263781	30	52	10	1.181	2.047	0.394
2263783	30	55	10	1.181	2.165	0.394
2263757	25	40	10	0.984	1.575	0.394
2263851	50	72	10	1.969	2.835	0.394
2263797	35	52	10	1.378	2.047	0.394
2263766	25	62	10	0.984	2.441	0.394
2263727	17	40	7	0.669	1.575	0.276
2263867	55	85	8	2.165	3.346	0.315
2263892	75	90	8	2.953	3.543	0.315
2263785	30	62	10	1.181	2.441	0.394
2263761	25	47	10	0.984	1.85	0.394
2263704	12	25	5	0.472	0.984	0.197

2263812	40	52	6	1.575	2.047	0.236
2263788	32	42	7	1.26	1.654	0.276
2263835	45	68	10	1.772	2.677	0.394
2263696	10	20	6	0.394	0.787	0.236
2263744	20	40	7	0.787	1.575	0.276
2263724	17	30	7	0.669	1.181	0.276
2263822	40	72	7	1.575	2.835	0.276
2263756	25	38	7	0.984	1.496	0.276
2263721	17	26	6	0.669	1.024	0.236
2263723	17	28	7	0.669	1.102	0.276
2263733	19	32	7	0.748	1.26	0.276
2263709	14	24	7	0.551	0.945	0.276
2263861	55	70	8	2.165	2.756	0.315
2263869	58	72	8	2.283	2.835	0.315
2263836	45	72	10	1.772	2.835	0.394
2263885	6	19	6	0.236	0.748	0.236
2263702	12	22	7	0.472	0.866	0.276
2263710	15	24	7	0.591	0.945	0.276
2263824	42	55	7	1.654	2.165	0.276
2263731	18	35	7	0.709	1.378	0.276
2263841	45	85	10	1.772	3.346	0.394
2263706	12	32	7	0.472	1.26	0.276
2263752	25	33	6	0.984	1.299	0.236
2263725	17	32	7	0.669	1.26	0.276
2263853	50	75	10	1.969	2.953	0.394

2263800	35	55	8	1.378	2.165	0.315
2263811	38	62	7	1.496	2.441	0.276
2263862	55	72	10	2.165	2.835	0.394
2263810	38	55	7	1.496	2.165	0.276
2263729	18	30	7	0.709	1.181	0.276
2263730	18	32	7	0.709	1.26	0.276
2263750	22	47	7	0.866	1.85	0.276
2263717	16	26	7	0.63	1.024	0.276
2263718	16	28	7	0.63	1.102	0.276
2263840	45	80	8	1.772	3.15	0.315
2263796	35	50	7	1.378	1.969	0.276
2263754	25	36	7	0.984	1.417	0.276
2263778	30	47	8	1.181	1.85	0.315
2263719	16	30	7	0.63	1.181	0.276
2263878	62	90	10	2.441	3.543	0.394
2263849	50	68	10	1.969	2.677	0.394
2263795	35	50	10	1.378	1.969	0.394
2263703	12	24	7	0.472	0.945	0.276
2263858	55	68	8	2.165	2.677	0.315
2263856	52	68	8	2.047	2.677	0.315
2263713	15	30	7	0.591	1.181	0.276
2263779	30	48	8	1.181	1.89	0.315
2263789	32	45	7	1.26	1.772	0.276
2263763	25	52	10	0.984	2.047	0.394
2263741	20	38	8	0.787	1.496	0.315

2263805	36	52	7	1.417	2.047	0.276
2263870	58	80	8	2.283	3.15	0.315
2263722	17	28	6	0.669	1.102	0.236
2263888	70	85	7	2.756	3.346	0.276
2263732	19	30	7	0.748	1.181	0.276
2263845	48	72	10	1.89	2.835	0.394
2263698	10	24	7	0.394	0.945	0.276
2263743	20	40	10	0.787	1.575	0.394
2263806	37	52	8	1.457	2.047	0.315
2263769	28	42.5	8	1.102	1.673	0.315
2263846	48	72	8	1.89	2.835	0.315
2263860	55	70	10	2.165	2.756	0.394
2263895	78	100	10	3.071	3.937	0.394
2263844	48	65	10	1.89	2.559	0.394
2263877	60	95	10	2.362	3.74	0.394
2263695	10	19	7	0.394	0.748	0.276
2263828	45	60	10	1.772	2.362	0.394