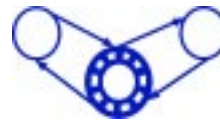


Townsend Bearings



O Rings and Circlips

O-Rings: Resistance Properties of various elastomers



Townsend Bearings

We must emphasise that this chart should only be used as a guide. Final selection should be based on functional evaluations or experience under actual end use conditions.

	Buna-N Nitrile	Ethylene Propylene	Neoprene	Urethane	Silicone	Fluoro-silicone	Fluoro-elastomer Viton	Poly-acrylate	Kalrez / Zetac Perfluor-elastomer	Teflex
ASTM CODE 1992	NBR	EPDM	CR	AU	VMQ	FVMQ	FKM	AC	FFKM	FEP
ISO code 1987	NBR	EPM	CR	EU	VMQ	FVMQ	FPM	ACM	FPM	FEP
Hardness Shore A	40-95	40-80	20-90	50-90	Oct-90	40-80	60-90	50-90	80-90	80-90
Tensile Strength (psi)	2500	2500	3000	5000	1400	900	2000	2000	2000	2000
Tearing Strength	G	G	VG	E	N	N	G	G	G	G
Wear Resistance	G	G	G	VG	N	N	G	VG	G	G
Fire-proof Hyd. Fluids	N	VG	R	N	G	VG	R-N	N	E	E
Lubricating Oils	G	N	G	VG	G	E	E	VG	E	E
Fuel Oils	G	N	G	VG	R	E	E	VG	E	E
Hydraulic Oils	E	N	G	VG	G	E	E	U	E	E
Vegetable Oils	E	R	G	VG	G	E	E	U	E	E
Animal Fats	E	R	G	VG	G	E	E	U	E	E
Petrol (Normal)	VG	N	R	VG	R	E	E	VG	E	E
Petrol (High Octane)	G	N	N	VG	N	E	E	G	E	E
Kerosene	VG	N	R	VG	R	E	E	VG	E	E
Aromatic Hydrocarbons	R	N	N	G	N	E	E	R	E	E
Aliphatic Hydrocarbons	VG	N	G	VG	R	E	E	VG	E	E
Water (< 80°C)	VG	E	R	R-N	E	E	E	N	E	E
Water (> 80°C)	R	E	N	N	E	VG	G	N	E	E
Alcohols	VG	E	N	N	E	VG	G	N	E	E
Ketones	N	G	N	N	G	N	N	N	E	E
Concentrated Acids	N	R	N	N	R	G	VG	N	E	E
Diluted Acids	R	G	G	N	G	VG	E	N	E	E
Alkalis	R	VG	G	N	G	R	G	N	E	E
Chlorinated Solvents	R	N	N	R-N	N	E	E	R	E	E
Ozone & Sunlight	R	E	VG	VG	E	E	E	VG	E	E
Max. temp at continuous service	110°C	135°C	105°C	80°C	230°C	205°C	205°C	175°C	E 250°C to 316°C	E 204°C to 260°C
Electrical Properties	N	E	VG	G	E	E	E	N	E	E
Compression Set	VG	G	VG	N	E	VG	R	G	G	G
Flame Resistant	No	No	Yes	No	No	No	Yes	No	Yes	Yes

E = Excellent; VG = Very Good; R = Reasonable; N = Not Recommended; U = Unsuitable