

The chart matches the general rubber properties required in most O-ring applications with the capabilities of commonly used elastomers. Since no one elastomer is rated “excellent” for all properties, compromises are sometimes necessary when selecting an elastomer for a specific O-ring application. Start with the most critical properties to narrow your choices.

Property	Nitrile	SBR	Neoprene®	Ethylene Propylene	Fluorocarbon	Fluorosilicone	Polyacrylate	Polyurethane	Silicone	Kalrez®
Ozone resistance	P	P	GE	E	E	E	E	E	E	E
Weather Resistance	F	F	E	E	E	E	E	E	E	E
Heat Resistance	G	FG	G	E	E	E	E	E	E	E
Chemical Resistance	FG	FG	FG	E	E	E	P	F	GE	E
Oil Resistance	E	P	FG	P	E	G	E	G	PG	E
Impermeability	G	F	G	G	G	P	E	G	P	E*
Cold Resistance	G	G	FG	GE	FP	GE	P	G	E	FP
Tear Resistance	FG	FG	FG	GE	F	P	FG	GE	P	F
Abrasion Resistance	G	G	G	GE	G	P	G	E	P	G
Set Resistance	GE	G	F	GE	GE	GE	F	F	GE	GE
Dynamic Properties	GE	G	F	GE	GE	P	F	E	P	GE
Acid Resistance	F	F	FG	G	E	FG	P	P	FG	GE
Tensile Strength	GE	GE	G	GE	GE	F	F	E	P	GE
Electrical Properties	F	G	F	G	F	E	F	FG	E	F
Water/Steam Resistance	FG	FG	F	E	FG	F	P	P	F	GE
Flame Resistance	P	P	G	P	E	G	P	P	F	F

E = Excellent

G = Good

F = Fair

P = Poor

E\* = Special Compounds Available