

Comparison of Properties Chart

This 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.

E = excellent	(1) =	Property	(6) =	Fluoro carbon
G = good	(2) =	Nitrite	(7) =	Fluorosilicone
F = fair	(3) =	SBR	(8) =	Polyacrylate
P = poor	(4) =	Neoprene	(9) =	Polyurethane
	(5) =	Ethylene Propylene	(10) =	Silicone

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ozone Resistance	P	P	GE	E	E	E	E	E	E
Weather Resistance	F	F	E	E	E	E	E	E	E
Heat Resistance	G	FG	G	E	E	E	E	F	E
Chemical Resistance	FG	FG	FG	E	E	E	P	F	GE
Oil Resistance	E	P	FG	P	E	G	E	G	PG
Impermeability	G	F	G	G	G	P	E	G	P
Cold Resistance	G	G	FG	GE	FP	GE	P	G	E
Tear Resistance	FG	FG	FG	GE	F	P	FG	GE	P
Abrasion Resistance	G	G	G	GE	G	P	G	E	P
Set Resistance	GE	G	F	GE	GE	GE	F	F	GE
Dynamic Properties	GE	G	F	GE	GE	P	F	E	P
Acid Resistance	F	F	FG	G	E	FG	P	P	FG
Tensile Strength	GE	GE	G	GE	GE	F	F	E	P
Electrical Properties	F	G	F	G	F	E	F	FG	E
Water/Steam	FG	FG	F	E	FG	F	P	P	F
Flame Resistance	P	P	G	P	E	G	P	P	F