

PROPERTIES / RELATIVE PERFORMANCE
GUIDE OF ELASTOMERS



NOV. 1, 2017

Chemical Name ASTM Designation ASTM Class(es)	Non-Oil Resistant				Oil Resistant	
	Polyisoprene Natural Rubber	Butyl Polyisobutylene	SBR, BunaS, GRS Styrene-Butadien	EPDM, EPT, EPR Ethelyne Proplene	Neoprene Polychloroprene	Nitrile, Buna N Butadiene- Acrlonitrile
	IR/NR AA	IR AA,BA	SBR AA,BA	EPDM AA,BB,CA,DA	CR BC,BE,CH	AU BF,BG,BK
Physical Properties						
Durometer Range (A)	30-90	30-90	40-100	35-100	30-90	30-100
Tensile, max. psi (Mpa)	3000(21.0)	2000(14.0)	3000(21.0)	2500(24.5)	3000(28.0)	3000(28.0)
Elongation, max %	700	800	500	500	800	600
Specific Gravity	0.91	0.91	0.92	0.86	1.23	0.96
Compresion Set	Good	Fair-Good	Good	Good-Excellent	Good	Good
Environmental Properties						
Electrical Resistivity	Excellent	Excellent	Excellent	Excellent	Poor-Good	Poor-Fair
Flame Resistivity	Poor	Poor-Fair	Poor	Poor	Good-Excellent	Poor-Fair
Gas Impemeability	Good	Excellent	Fair	Good	Good	Good-Excellent
Impact Resistance	Excellent	Excellent	Excellent	Good	Good	Good
Abrasion Resistance	Good	Good	Excellent	Good	Good	Excellent
Tear Resistance	Good	Good	Fair-Good	Fair-Good	Good	Good
Continuous Temp. max.	175F	200F	175F	250F	325F	200F
Intermittent Temp. max.	210F	250F	225F	325F	300F	300F
Stiffening Point Temp.	(-)30F	(-)20F	(-)30F	(-)40F	0F	0F
Brittle Point Temprature	(-)75F	(-)75F	(-)75F	(-)90F	(-)50F	(-)50F
Weatherability	Fair-Good	Excellent	Fair	Excellent	Excellent	Good
Oxidation Resistance	Good	Excellent	Fair	Good-Excellent	Fair-Good	Fair-Good
Ozone Resistance	Poor	Excellent	Poor	Excellent	Good	Poor-Good
300 F Stream Resistance	Poor	Good	Poor	Excellent	Poor	Poor
Immersion Properties						
Alphatics (Isoctane)	Poor	Poor	Poor	Poor	Fair-Good	Good-Excellent
Aromatics (Toluene)	Poor	Poor	Poor	Poor	Poor	Good-Excellent
Halogenated Solvents	Poor	Poor	Poor	Poor	Poor	Poor
Gasoline (Unleaded)	Poor	Poor	Poor	Poor	Poor	Good-Excellent
Gasohol (Ethyl)	Poor	Poor	Poor	Poor	Poor	Good-Excellent
Alcohols	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Wagner Brake Fluid	Good	Good	Excellent	Excellent	Excellent	Fair
Transmission Fluid	Poor	Poor	Poor	Poor	Good	Excellent
Silicate Hydraulic Fluid	Poor	Poor	Poor	Poor	Excellent	Good
Phosphate Hydraulic Fluid	Poor	Good	Poor	Excellent	Poor	Poor
Water	Excellent	Excellent	Excellent	Excellent	Good	Good-Excellent
Acids (cold 20%)	Fair	Good-Excellent	Good	Excellent	Fair	Fair
Bases (cold 20%)	Good	Good-Excellent	Good	Excellent	Good	Good