

Property comparison of different polymers

Abbreviation	NBR	EPDM	FKM/FPM	VMQ	CR	FFKM
Polymer name	Nitrilkautschuk	Ethylen-Propylen	Fluorkautschuk	Silikonkautschuk	Chloropren-Kautschuk	Perfluorkautschuk
Trade names	Perbunan, Buna N, Euprene, Nipol	Buna EP, Nordel, Vistalon, Keltan	Viton, Tecnoflon, Dai-EL, Dyneon Fluorelastomere,	Silopren, Elastosil	Neopren, Baypren	Kalrez, Chemraz, Isolast, Parofluor, Simriz
Resistant	Mineral oils	Water, brake fluid, caustic solutions, ozone + weathering	Oils, fuels, many solvents	Paraffin-based oils, ozone and weathering	Paraffin-based oils, refrigerants, ammonia	against almost all technical chemicals
Not resistant	Solvents, ozone and weathering	Mineral oils	Ketones, water (>100-150°C)	Aromatic oils, fuels	Aromatic oils, fuels	
Advantages	Good abrasion resistance, price, cold behaviour (low ACN content)	Price, low temperature properties (low ethylene content), long-term behaviour (peroxide cross-linked)	low swelling in oils, good heat resistance	good heat resistance, price + processing, physiological behaviour	good strength, good low temperature properties	almost universal resistance
Disadvantages	vulnerable to ozone cracking, temperature resistance	not oil resistant	Low temperature properties (standard types), price	low strength	only limited oil resistance	high price
approx. price in €/litre	< 5	< 5	50 (standard types) –1000 (special types)	8-12	<10	> 5000