

ADVANTAGES AND LIMITATIONS OF SOME ELASTOMER TYPES

NR	<i>Natural Rubber</i> (cis-polyisoprene)	<ul style="list-style-type: none"> • Good dynamic prop. • Good tensile and tear strength • Good abrasive resistance 	<ul style="list-style-type: none"> • Poor resistance to chemicals and oil substances • No long-time exposure to sunlight, ozone and heat
SBR	Styrene-butadiene Rubber	<ul style="list-style-type: none"> • Good tensile strength, dynamic prop. and abrasive resistance • Good substituent for NR (but sometimes more cost-efficient) 	<ul style="list-style-type: none"> • Poor resistance to chemicals and oil substances • No long-time exposure to sunlight, ozone and heat
BR	(poly-)Butadiene Rubber	<ul style="list-style-type: none"> • Excellent dynamic properties • Good cold resistance • Good tear strength 	<ul style="list-style-type: none"> • Poor resistance to chemicals and oil substances • No long-time exposure to sunlight, ozone and heat
EPDM	Ethylene Propylene Diene Monomer	<ul style="list-style-type: none"> • Excellent resistance to ozone, oxidants and weather (water) conditions • Good heat resistance • Excellent insulator • Good chemical resistance (not oil) 	<ul style="list-style-type: none"> • Poor resistance to chemicals and oil substances • Less mechanical properties compared to NR
CR	Chloroprene Rubber (Neoprene)	<ul style="list-style-type: none"> • Good resistance to ozone, weather conditions (water) and sunlight • Good chemical and medium oil resistance • Good high temperature resistance • Good all-round rubber 	<ul style="list-style-type: none"> • More expensive than general purpose synthetic rubbers • No resistance to strong oxidizing acids, esters, ketones, chlorinated- and aromatic hydrocarbons
NBR	(Acrylo-)Nitrile Butadiene Rubber	<ul style="list-style-type: none"> • Good oil and solvent resistance • Good heat resistance • Good mechanical properties • Good resistance to gas permeability 	<ul style="list-style-type: none"> • No good resistance to ozone, ketones, esters, aldehydes and chlorinated hydrocarbons • Higher price only justified when oil resistance is required
HNBR	Hydrogenated Nitrile Butadiene Rubber (Therban)	<ul style="list-style-type: none"> • Very good heat and low temp. resistance • Good oil and solvent resistance • Good ozone and weather resistance • Good mechanical properties 	<ul style="list-style-type: none"> • High cost
MVQ	Methyl Vinyl Silicone Rubber (Silicone)	<ul style="list-style-type: none"> • Excellent heat resistance • Very good low temperature resistance • Good insulator 	<ul style="list-style-type: none"> • Higher price only justified when excellent heat resistance is required • Low tensile strength



FKM	Fluoropolymer (Viton)	<ul style="list-style-type: none"> • Excellent heat resistance • Excellent chemical, ozone, weather, oil and solvent resistance • Good resistance to gas permeability 	<ul style="list-style-type: none"> • High price • Intermediate mechanical properties
IIR	Isobutene-Isoprene Rubber (butyl rubber)	<ul style="list-style-type: none"> • Excellent resistance to gas permeability • Good resistance to chemical, ozone, weather and oil 	<ul style="list-style-type: none"> • Intermediate mechanical properties
CSM	Chlorosulphonated Polyethylene (Hypalon)	<ul style="list-style-type: none"> • Good heat resistance • Good ozone and weather (water) resistance • Good chemical resist. • Colour-proof • Excellent abrasive resistance 	<ul style="list-style-type: none"> • Intermediate oil resistance

The information presented herein has been compiled from several sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice of any product in violation of any patent or in violation of any law or regulation.