Raw Rubber Characteristics List

A=Superior B=Good C=Possible X=Not possible

Item \ Type (code)	Natural rubber (NR)	Styrene rubber (SBR)	Butadiene rubber (BR)	Isobutyle-neisoprene rubber (IIR)	Chloroprene rubber (CR)	Nitrile rubber (NBR)	Ethylene propylene rubber (EPDM)	Hypalon (CSM)	Silicon rubber (SI)	Fluorine rubber (FPM)	Polysulfide rubber (T)	Polyurethane rubber (U)	Acrylic rubber (ACM)
Specific gravity (raw material)	0.92	0.94	0.92	0.92	1.23	1	0.86	1.18	0.96	1.86	1.34	1.2	1.09
Repulsion elasticity	A	B	A	C	A	B	B	B	A	C	C	A	C
Tear strength	A	C	B	B	B	B	C	B	X	C	C	A	C
Wear resistance	A	A	A	B	B	A	B	A	C	A	C	A	B
Flexure and crack resistance	A	B	C	A	B	B	B	B	C	B	X	A	B
Heat resistance (maximum temperature ℃)	120	120	120	150	150	160	150	150	280	300	80	80	180
Cold resistance(low temperature embrittlement temperature℃)	-60	-60	-73	-55	-55	-40	-60	-60	-120	-50	-40	-60	-30
Aging resistance	C	C	B	A	A	B	A	A	A	A	B	B	A
Ozone resistance	X	X	X	A	A	X	A	A	A	A	A	A	A
Flame resistance	X	X	X	X	B	X	X	B	C	A	X	X	X
Gas permeability resistance	B	B	B	A	B	B	B	A	B	A	A	B	B
Radiation resistance	C	C	X	X	C	C	X	C	C	C	C	B	X
Aciduric — Organic acid	X	X	X	B	C	C	X	C	B	X	X	X	X
Aciduric — Strong acid	C	C	C	A	B	B	B	A	C	A	X	X	C
Aciduric — Weak acid	B	B	B	A	A	B	B	A	B	A	C	C	B
Alkalinity resistance	B	B	B	A	A	B	B	A	A	X	C	X	C
Oil resistance and solvent resistance — Gasoline	X	X	X	X	B	A	X	C	C	A	A	A	A
Oil resistance and solvent resistance — Benzene	X	X	X	X	X	C	C	C	C	A	A	C	X
Oil resistance and solvent resistance — Ketone	C	C	C	A	C	X	A	C	B	X	A	X	X
Oil resistance and solvent resistance — Alcohol	A	A	A	A	A	A	A	A	A	A	A	C	X
Oil resistance and solvent resistance — Triclene	X	X	X	X	X	X	X	X	X	B	C	C	X

The above table indicates common qualities of natural rubber and synthetic rubbers, however, the quality of some types and compounds of raw materials may differ.