Resistance list

Note to EPDM
EPDM is generally characterized by its superior resistance to heat, aging and chemicals, good low-temperature behaviour and good electrical insulation properties. These properties allow a long service life under static load. EPDM is widely used in the automotive industry and in washing machines and dishwashers, as EPDM achieved good results compared with suds and cleaning solutions at higher temperatures. The resistance to hot water and steam is particularly good, so it is also well suited for gaskets and hoses in heating and the fittings and household appliance industries. The temperature range for continuous use is from about -30°C to +130°C, for short-time use approx. -50°C to +150°C.

Note to SBR
Vulkanisates of SBR with reinforcing fillers get nearly to the same level according to mechanical properties like NR. The abrasion resistance as well as heat and ageing resistance are even better but with lower elasticity and low temperature flexibility. In addition to the main range of application tires there are also articles like e. g. seals, profiles and hoses made of SBR. The temperature range for continuous use is from about -30°C to +100°C, for short-time use approx. -50°C to +120°C.

Note to CR
The products made of CR are characterized by high flame retardancy, good weather, chemical, ozone and aging resistance, medium oil resistance with good mechanical properties and favorable elastic behavior, even at low temperatures. The fields of application are e.g. in the scope of hoses, seals, conveyor belts (e.g. underground construction). The temperature range for continuous use is from about -20°C to +100°C.

The next page shows some examples of resistance to certain media or properties.

Resistance list

Medium / propertiy	**EPDM**	**SBR**	**CR**
Abrasion resistance	E	A-B	A-B
Aliphatic hydrocarbons	E	D-E	C
Aromatic hydrocarbons	E	E	E
chemical bases	B	A-C	C
Resistance against permanent deformation	B-C	C	B-C
Brake fluids (based on glycol)	A	A-B	B-C
Chlorinated hydrocarbons	E	E	E
Flame resistance	E	E	A-B
Gas permeability	B	B-C	D
Fuels	E	E	D
Solvents	C-E	D	B-C
Seawater	A	A	A
Mineral oil and grease	E	D-E	C
Ozone and ageing resistance	A	C	B
Acids	B	A-C	C-D
Saltwater	A	A	A
Water up to 100°C	A	B	B-D

A = excellent

B = very good

C = good

D = moderate

E = insufficient

(at gas permeability: A = good permeability bis E = impermeable)