RESISTANCE LIST

MEDIUM	NBR	SBR	NR	PUR	UPE/ XLPE	PVC	EPDM
(Alpha) Methylstyrene (25°C)	C	-	C	-	A	-	C
Acetaldehyde	C	B	B	B	A	-	A
Acetamide	C	-	C	-	A	-	A
Acetone	C	A	A	-	A	-	A
Acetone nitrile	-	-	-	-	A	-	B
Acetophenone	C	-	C	-	A	-	A
Acetylacetone	C	-	C	-	A	-	A
Acrolein	C	-	C	-	A	-	A
Acrylonitrile	C	C	C	-	A	-	C
Acrylic acid	C	-	C	-	C	-	A
Adipic acid	A	A	A	-	A	-	A
Alum	A	B	A	A	A	40° A	A
Allyl alcohol	A	A	A	-	B	20° B	A
Aluminium Chloride	A	-	A	B	A	60° A	A
Aluminium Nitrate	A	-	A	-	B	-	A
Formic acid	C	B	C	-	A	-	A
Ammonium chloride	A	A	A	A	A	40° A	A
Ammonium hydroxide	A	-	A	-	A	40° A	A
Ammonium nitrate	A	A	A	A	A	40° A	-
Ammonium persulfate	A	-	A	B	A	-	A
Ammonium phosphate	A	A	A	A	A	60° A	A
Ammonium sulphate	A	A	A	A	A	60° A	A
Amylacetate	C	C	B	-	B	-	A
Amyl alcohol	A	A	A	B	A	40° A	A
Aniline	C	C	C	-	A	-	A
Anol (see cyclohexanol)	A	C	A	-	A	-	A
Anone (see cyclohexanone)	C	C	C	-	B	-	-
Ethanolamine	-	-	A	-	A	-	A
Ethenol	A	A	A	B	A	-	A
Ethyl acetate (cf. Acetal)	C	B	C	-	A	-	A
Ethyl acrylate	C	-	C	-	A	-	-
Ethyl alcohol (see ethanol)	A	A	A	B	A	-	A
Ethyl Ether	C	C	C	-	C	-	C
ethylbenzene (18°C)	C	C	C	-	B	-	C
Ethyl butyrate	C	-	C	-	A	-	A
Ethylene chloride (see dichloroethane)	C	C	C	-	A	-	C
Ethylene glycol monoethyl ether acetate	C	A	A	-	A	-	A
Ethylene glycol	A	A	A	B	A	60° A	A
Ethylene glycol monoethyl ether	A	-	A	-	A	-	A
Ethylmercaptan	C	-	C	-	A	-	-
Barium chloride	A	-	A	A	A	-	A
Benzaldehyde	C	B	C	C	A	-	-
Petrol (super fuel)	A	C	C	C	A	-	C
Gasoline with max. 60% benzene content	A	C	C	B	A	-	C
Benzene	C	C	C	C	A	-	C
Benzyl alcohol	C	-	A	-	A	20° B	A
Benzyl chloride (2 - 5°C)	C	-	C	-	C	-	C
Prussic acid (cf. hydrocyanic acid)	B	-	A	B	A	-	A
Lead acetate	A	A	A	A	A	60° A	A
Lead arsenate	A	-	A	A	A	-	A
Borax (see disodium tetraborate)	A	A	A	A	A	40° A	A
Bromine	C	C	C	B	C	-	C
Bromobenzene (25°C)	C	-	C	-	B	-	C
Hydrobromic acid (conc.)	C	-	C	C	C	20° A	A
Bunker oil, fuel oil S	A	-	C	-	C	-	C
Butanol (cf. butyl alcohols)	A	A	A	C	A	40° A	A
butanone (see methyl ethyl ketone)	C	-	B	-	A	-	A
Butyric acid	C	-	C	-	A	-	A
Butyric acid Ethyl (see ethyl butyrate)	C	-	C	-	A	-	A
butyl acetate	C	C	C	-	A	-	A
Butyric aldehyde	C	-	C	-	A	-	A

MEDIUM	NBR	SBR	NR	PUR	UPE/ XLPE	PVC	EPDM
Butyl alcohols	A	-	A	C	A	40° A	A
Butyl ether	C	-	C	C	A	-	C
Calcium Chloride	A	A	A	A	A	40° A	A
Calcium hydroxide (lime water)	A	A	A	C	A	60° A	A
Calcium hypochlorite	C	C	A	-	A	40° A	A
Calcium nitrate	A	A	A	A	A	40° A	A
Calcium salts	A	-	A	-	A	-	A
Calcium sulphate	A	-	A	A	A	-	A
chlorobenzene (25°C)	C	C	C	C	B	-	C
Lead chloride lye (cf. sodium hypochlorite) 13%.	C	C	C	B	B	40° A	A
chlorodifluoromethane (25°C)	-	-	-	-	-	-	-
Chloroacetic acid (25°C)	C	C	C	C	A	-	-
Chloroform (see trichloromethane)	C	C	C	C	A	-	C
Chlorosulfonic acid	C	C	C	C	C	-	-
Chlorine water (0.5% chlorine)	C	C	C	B	A	40° B	A
Hydrochloric acid (37%)	C	C	B	-	A	-	A
Chromic acid (25%-40°C)	C	C	C	-	A	40° A	B
Cyanide (see potassium cyanide)	A	A	A	B	A	60° A	A
Hydrocyanic acid	B	-	A	B	A	-	A
Cyclohexane	A	C	C	-	A	-	C
Cyclohexanol	A	C	A	C	A	60° A	A
Cyclohexanone	C	C	C	C	B	-	-
Cyclohexylamine	C	C	C	-	A	-	-
Decahydronaphthalene	A	C	C	A	A	-	C
Decalin (see decahydronaphthalene)	A	C	C	A	A	-	C
Diacetone alcohol	C	A	A	B	A	-	A
Diethylamine	C	C	C	B	A	20° B	-
Diethyl ether	C	C	C	-	C	-	C
Diethylene glycol	A	A	A	B	A	-	A
Dibutyl phthalate	C	C	C	B	A	-	A
Dibutylsebacate	C	C	C	C	A	-	A
Dichloroethane	C	C	C	-	A	-	C
dichloromethane (25°C)	C	C	C	C	C	-	C
Diesel fuel	A	C	C	B	A	40° A	C
Diglycol (see diethylene glycol)	A	A	A	B	A	-	A
Diisobutylene	-	C	C	-	A	-	C
Dimenthylamine	C	C	C	-	A	20° B	-
Dimethylaniline	C	-	C	C	A	-	B
Dimethylformamide	C	C	A	B	A	-	A
Dimethyl sulfoxide	C	-	C	-	-	-	A
Dioctyl phthalate	C	C	C	-	A	-	A
Dioctylsebacate	C	C	C	B	A	-	A
Dioxane (cf. diethylene oxide 60°C)	C	B	C	C	A	-	A
Iron Chloride	A	A	A	B	A	-	A
Iron nitrate	A	-	A	-	A	-	A
Iron sulphate	A	-	A	B	A	-	A
Glacial acetic acid (see acetic acid 100%)	C	C	B	C	C	-	C
Epichlorohydrin	C	-	C	C	A	-	A
Acetic acid (100%)	-	C	C	C	C	-	C
Acetic acid (60%)	-	C	B	C	C	40° A	C
Acetic anhydride (20°C)	C	A	B	C	A	-	A
Fatty acids	A	-	C	A	B	60° A	C
Hydrofluoric acid (75%)	C	B	B	B	A	20° B	A
Hydrofluoric acid (75%) (see hydrofluoric acid)	C	B	B	B	A	20° B	B
formaldehyde solution (40%)	B	A	B	B	A	40° A	A
Furfural	C	-	A	-	A	-	A
Furfurol	C	-	A	-	A	-	A
Tannic acid (60°C)	C	A	C	C	A	20° B	A
Glucose	A	A	A	A	A	40° A	A
Glycols	A	A	A	B	A	60° A	A
Urea	A	A	A	B	A	40° A	A

RESISTANCE LIST

MEDIUM	NBR	SBR	NR	PUR	UPE/ XLPE	PVC	EPDM
Fuel oil, type ASTM-A (Isooctane)	A	C	C	B	A	-	C
Fuel oil	A	C	C	B	A	20° A	C
Heptane	A	C	C	B	A	20° A	C
Hexane	A	C	C	B	A	20° A	C
Hexanols (see hexyl alcohol)	A	-	A	C	A	-	A
Heyl alcohol	A	-	A	C	A	-	A
i-cresols (60%)	C	C	C	C	C	20° B	-
Isobutyl acetate	C	-	C	-	A	-	A
isophorones (20°C)	C	-	C	C	A	-	A
Isopropanol (see isopropyl alcohol)	A	A	A	B	A	20° A	A
Isopropyl alcohol	A	A	A	B	A	20° A	A
isopropylbenzene (40°C)	C	-	C	B	A	-	C
potassium bromate (10%)	A	A	A	-	A	40° A	A
Potassium carbonate	A	A	A	B	A	40° A	A
Potassium chlorate	A	B	A	A	A	60° A	A
Potassium chloride	A	A	A	A	A	60° A	A
Potassium cyanide	A	-	A	B	A	60° A	A
Potassium hydroxide solution	B	-	A	A	A	40° A	A
Potassium iodide	A	A	A	-	A	60° A	A
Potassium nitrate	A	A	A	A	A	60° A	A
Potassium permanganate (10%)	C	B	C	A	A	40° A	A
Potassium sulphate	A	B	A	A	A	40° A	A
Silica hydrofluoric acid (50%)	C	A	C	-	A	-	A
Saline solution (see brine)	A	A	A	B	A	40° A	A
Carbon dioxide gaseous	A	A	A	A	A	60° A	A
Carbonic acid gas	A	-	A	A	A	60° A	A
Cresolic acid	C	-	C	C	C	-	-
Copper acetate	A	-	C	-	A	-	A
Copper cyanide	A	-	C	B	A	-	A
Light Petrol	A	-	C	-	A	-	C
Magnesium Chloride	A	A	A	A	A	-	A
Magnesium Lye	A	-	A	A	A	-	A
Magnesium sulphate	A	A	A	A	A	-	A
Methanol (see methyl alcohol)	A	A	A	B	A	40° A	A
methyl acetate	C	-	C	C	A	-	A
methyl acrylate	C	C	C	-	A	-	-
Methyl alcohol	A	A	A	B	A	40° A	A
Methylamine (aqueous -30% -20°C)	C	B	A	-	A	20° B	B
Methyl chloride gaseous	C	C	C	C	B	-	C
methylene chloride (20°C cf. dichloromethane)	C	C	C	C	C	-	C
Methyl isobutyl ketone	C	C	C	C	A	-	A
Naphtha	A	C	C	B	A	-	C
naphthalene (90°C)	C	C	C	B	C	-	C
Sodium acetate	A	-	A	B	A	20° A	A
Sodium bisulfite	A	A	A	C	A	40° A	A
Sodium carbonate	A	A	A	B	A	60° A	A
Sodium chloride	A	A	A	B	A	40° A	A
Sodium cyanide (30%)	A	-	A	B	A	-	A
Sodium hydroxide (20%)	B	B	B	B	A	40° A	A
sodium hypochlorite (13%)	C	C	C	B	B	40° A	A
Sodium nitrate	A	A	A	A	A	40° A	A
Sodium perborate	A	-	A	-	A	-	A
Sodium phosphate	A	A	A	B	A	40° A	A
Sodium silicate	A	A	A	B	A	40° A	A
Sodium sulphate	A	A	A	A	A	40° A	A
Sodium sulfide	A	A	A	A	A	40° A	A
Sodium thiosulfate	A	A	A	B	A	40° A	A
Caustic soda (cf. sodium hydroxide 20%)	B	B	B	B	A	40° A	A
Nickel sulphate	A	A	A	B	A	-	A
nitrobenzene (40°C)	C	C	C	C	A	-	C
Nitropropane	C	B	B	C	A	-	A

MEDIUM	NBR	SBR	NR	PUR	UPE/ XLPE	PVC	EPDM
Octane	A	-	C	A	A	-	C
Oleum	C	C	C	C	C	-	C
Oleic acid	A	C	B	A	A	60° A	A
Oxalic acid (50°C)	B	B	A	C	A	60° A	A
Ozone	C	C	C	A	B	20° A	A
Palmitic acid	A	C	B	A	B	20° A	A
Paraffin (cf. alkanes)	A	C	C	B	A	40° A	B
perchloroethylene (20°C)	C	C	C	C	B	-	C
Petroleum Ether	A	C	C	B	A	60° A	C
Petroleum	A	C	C	A	A	20° A	C
Phenol (see carbolic acid 60°C)	C	C	C	C	B	20° B	A
phosphorus chloride (50°C)	C	C	B	-	A	-	B
phosphoric acid (60°C)	B	A	B	C	A	40° A	A
Picric acid (alcoholic solution)	B	B	B	C	A	20° A	A
Propanol (see propyl alcohol)	A	A	A	B	A	20° A	A
Propionic acid ethyl ester	C	C	A	-	A	40° A	A
Propylacetate	C	-	B	-	A	-	A
Propyl alcohol	A	A	A	B	A	20° A	A
Pyridine	C	C	C	C	A	-	B
Mercury	A	A	A	A	A	60° A	A
Mercury salts	A	A	A	-	A	40° A	A
Ammonia (cf. ammonia solution)	A	-	A	C	A	60° A	A
Nitric acid (60°C-20%)	C	C	C	C	A	-	B
Nitric acid (40°C-40%)	C	C	C	C	-	-	B
Nitric acid (fuming 100%)	C	C	C	C	C	-	C
Hydrochloric acid (20%)	B	-	B	-	A	40° A	A
Hydrochloric acid (37%)	C	-	B	C	A	40° A	A
Separating water (see nitric acid 100%)	C	C	C	C	C	-	C
Sulphur dioxide (dry 60%)	C	B	C	B	A	60° A	A
Sulphurous acid (10%)	C	B	C	B	A	20° B	A
Carbon disulfide	C	C	B	C	B	-	C
Sulphuric acid (50%-50°C)	C	B	B	B	A	C	A
Sulphuric acid (100%=smoking)	C	B	C	C	C	C	C
Sulphuric acid (75%-50°C)	C	B	C	C	A	C	B
Sulphuric acid (20%-50°C)	B	B	B	A	A	C	A
Sulphuric acid (96%-20°C)	C	B	C	C	A	C	C
Sulphuric anhydride (see sulphur trioxide)	C	-	-	C	C	-	B
Heavy gasoline (see naphthalene)	C	C	B	C	C	-	C
Silver salts	A	B	-	A	A	40° A	A
Silicone grease	A	A	A	A	A	-	A
Silicone oil	A	A	A	A	A	20° A	A
Stearic acid	A	A	A	A	A	60° A	A
Nitrogen, gaseous	A	A	A	A	A	-	A
Sulphury chloride	C	B	-	C	A	-	B
Tannin (see tannic acid)	C	A	C	C	A	20° B	A
Turpentine	A	C	C	C	A	20° A	C
White spirit (see White Spirit)	A	C	C	B	A	-	C
Tetrachloroethane	C	C	C	-	A	-	C
Carbon tetrachloride	C	C	C	B	C	-	C
Tetrahydrofuran	C	C	C	-	B	-	C
Tetralin	C	-	C	-	A	-	C
toluene (20°C)	C	C	C	C	B	-	C
Triethamine	A	-	C	-	A	-	C
triethanolamine (20°C)	A	C	A	C	A	20° B	A
Trichloroethylene	C	C	C	C	C	-	C
Trimethylamine	A	-	C	-	A	-	C
vinyl acetate	C	C	C	-	A	-	A
Water	A	A	A	A	A	A	A
hydrogen peroxide (35%)	C	C	B	B	A	40° A	B
Tartaric acid	A	A	A	A	A	-	A
white spirit	A	C	C	B	A	-	C

RESISTANCE LIST

MEDIUM	ANBR	SBR	NR	PUR	UPE/ XLPE	PVC	EPDM
Xylene (mixture of isomers)	C	C	C	C	C	-	C
Zinc acetate	A	C	A	C	A	-	A
Zinc chloride	A	-	A	B	A	-	A
Zinc sulphate	A	-	A	B	A	-	A
Citric acid	A	A	A	A	A	40° A	A
Sugar	A	-	A	A	A	40° A	A

A: RESISTENT (NOT FOR CONTINUOUS OPERATION) B: CONDITIONALLY RESISTANT C: UNBESTÄNDIG

This resistance list does not claim to be complete and is for guidance only.

MATERIAL DESCRIPTION

NBR - Acrilonitrile butadiene (nitrile):
Acrylonitrile-butadiene rubber, also known as nitrile rubber, abbreviated AB and NBR, is a copolymer of acrylonitrile and 1,3-butadiene and is one of the synthetic rubbers. Vulcanizates of this rubber have a high resistance to mineral oils, fats and hydrocarbons.

SBR - Styreen butadiene rubber:
Styrene-butadiene rubber is the starting material for the by far most produced variant of synthetic rubber. Its abbreviation is SBR, derived from the English term "Styrene Butadiene Rubber". It is a copolymer of 1,3-butadiene and styrene. SBR is the most widely used synthetic rubber today and usually contains 23.5% styrene and 76.5% butadiene. With a higher styrene content, the rubber becomes thermoplastic, but remains crosslinkable.

NR - Natural rubber:
Natural rubber or rubber (indian. cao 'tree' and ochu 'tear'; together 'tear of the tree') consists mainly of the elastomeric polymer cis-1,4-polyisoprene. It is mainly used for the production of rubber by vulcanization.
Natural rubber is mostly obtained in South-East Asia from latex, the latex of the rubber tree (Hevea brasiliensis), which originally comes from Brazil. Today, however, 60 % of the world's rubber requirements are covered by petrochemically produced synthetic rubber..

PUR (AU) - polyurethane:
Polyurethanes (abbreviation PUR; in linguistic usage also PU) are plastics or synthetic resins which are produced from the polyaddition reaction of dialcohols (diols) or polyols with polyisocyanates.
Diols and diisocyanates lead to linear polyurethanes, crosslinked polyurethanes by reacting, for example, triisocyanate-diisocyanate mixtures with polyols. Degree of crosslinking and a variable tightness of the crosslinking lead to plastics, which can be thermosets, thermoplastics or elastomers. In terms of quantity, polyurethane foams, as flexible or rigid foam, are the most important.

XLPE - Crosslinked polyethylene:
Polyethylene (abbreviation PE) is a thermoplastic material produced by chain polymerisation of ethene ($CH_2=CH_2$) with the simplified structural formula
Polyethylene belongs to the group of polyolefins and is partially crystalline and non-polar. It is by far the most frequently used (standard) plastic worldwide. All types of polyethylene are characterised by high chemical resistance, good electrical insulation and good sliding properties.

PVC - polyvinyl chloride:
Polyvinyl chloride, PVC for short, is an amorphous thermoplastic. PVC is hard and brittle and only becomes soft, malleable and suitable for technical applications by adding plasticizers and stabilizers.

EPDM - ethylene propylene rubber:
Ethylene-propylene-diene rubber (abbreviation EPDM, ethylene-propylene-diene) is a terpolymeric elastomer (rubber) and thus a synthetic rubber. EPM (ethylene-propylene copolymer) as well as EPDM belong to the statistical copolymers with saturated polymer skeleton (according to DIN designation: M group; in contrast, rubbers with unsaturated hydrocarbon chain belong to the R group, such as natural rubber NR, styrene-butadiene rubber SBR).