

# Chemical Resistance of Rubber Materials

Classification	Chemicals	NR	CR	NBR	EPT	IIR	CSM	SBR	Urethane	Silicone	Fluore
Acid	Sulfurous Acid(10%)	○	○	○	○	○	○	○	×	×	◎
	Hydrochloric Acid (10%)	○	△	○	○	◎	○	○	×	△	◎
	Concentrated Hydrochloric Acid (36%)	×	△	○	○	◎	○	△	×	×	◎
	Hydrogen Peroxide (5%)	○	○	○	◎	◎	○	○	—	◎	◎
	Formic Acid (25%)	○	○	○	◎	◎	◎	○	×	△	△
	Chromic Acid (10%)	×	×	×	○	△	△	×	×	△	◎
	Acetic Acid (10%)	○	○	○	○	◎	○	○	×	○	×
	Nitric Acid (10%)	×	○	△	○	○	○	△	×	×	△
	Nitric Acid (60%)	×	×	×	×	△	△	×	×	×	△
	Sulfuric Acid (10%)	△	○	△	◎	○	○	○	△	×	◎
	Concentrated Hydrochloric Acid (98%)	×	×	×	○	△	△	×	×	×	◎
	Phosphoric Acid(75%)	×	△	×	○	○	◎	△	○	×	◎
Alkali	Ammonia Aqueous	△	○	×	◎	○	○	×	×	○	×
	Sodium Hypochlorite	×	△	△	○	○	○	×	×	△	○
	Calcium Hydroxide	○	◎	◎	◎	◎	◎	○	○	○	◎
	Sodium Hydroxide (30%)	○	○	△	○	◎	○	○	×	×	△
Organic Chemicals	Acetaldehyde	△	×	×	○	◎	△	×	×	○	×
	Acetone	×	○	×	○	◎	×	○	×	×	×
	Aniline	×	×	×	○	○	×	×	×	×	△
	Dichlorobenzene	×	×	×	×	×	×	×	×	×	○
	Xylene	×	×	×	×	×	×	×	×	×	○
	Cresol	×	△	△	×	×	△	×	×	×	△
	Ethyl Acetate	×	×	×	○	○	×	×	×	△	×
	Carbon Tetrachloride	×	×	×	×	×	×	×	×	×	◎
	Cyclohexane	×	×	○	×	×	×	×	○	×	○
	Diethyl Ether	×	△	×	×	×	×	×	○	×	×
	Dibutyl Phthalate	×	×	×	◎	△	×	×	△	○	△
	Toluene	×	×	×	×	×	×	×	×	×	△
	Triethanolamine	○	○	△	○	○	○	○	×	—	×
	Benzene	×	×	×	×	×	×	×	×	×	△
Methyl Alcohol	◎	◎	◎	◎	◎	◎	◎	×	○	△	
Oil, etc.	Linseed Oil	×	△	◎	△	○	△	×	○	◎	◎
	IRM 903	×	×	○	×	×	×	×	○	△	◎
	Gasoline	×	△	○	×	×	△	×	○	×	◎
	Silicone Oil	○	◎	◎	◎	◎	◎	◎	◎	△	◎
	Kerosene	×	△	○	×	×	×	×	○	×	◎
	Bromine	×	×	×	×	×	×	×	×	×	○

- ◎ : Little-affected
- : Affected in some degree, but afford to be used.
- △ : Unadvisable to use due to certain amount of affection.
- ×

Above listed data indicates general chemical resistant behavior such as swelling rate and etc. It does not provide any guarantees against chemical resistance. Please confirm by appropriate tests considering use conditions before use.