# Rubber-Metal-Gasket

## Chemical Resistance Table

*Subject to technical alterations.*
*Status: June 2005*

○ *Resistant* ◆ *Not recommended*
◆ *Condit. recommended* -- *No Data*

| Medium | NR | NBR-GW | EPDM-KTW | CSM | FKM-Viton |
|---|---|---|---|---|---|
| Adipic acid | ○ | ○ | ○ | ○ | ○ |
| Air | ◆ | ◆ | ○ | ◆ | ○ |
| Alum | ○ | ○ | ○ | ○ | ○ |
| Aluminium acetate | ○ | ○ | ○ | ◆ | ◆ |
| Aluminium chlorate | -- | ○ | ○ | -- | -- |
| Aluminium chloride | ○ | ○ | ○ | ○ | ○ |
| Ammonia | ◆ | ◆ | ○ | ○ | ◆ |
| Ammonium carbonate | ○ | ◆ | ○ | ○ | ◆ |
| Ammonium chloride | ○ | ○ | ○ | ○ | ◆ |
| Ammonium diphosphate | -- | ○ | ○ | -- | -- |
| Ammonium hydroxide | ◆ | ◆ | ○ | ○ | ◆ |
| Amyl acetate | ◆ | ◆ | ○ | ◆ | ◆ |
| Aniline | ◆ | ◆ | ○ | ◆ | ○ |
| Anon cyclohexanone | ◆ | ◆ | ◆ | ◆ | ◆ |
| Arcton 12 | ◆ | ○ | ◆ | ◆ | ○ |
| Arcton 22 | ○ | ◆ | ○ | ○ | ◆ |
| Asphalt | ◆ | ◆ | ◆ | ◆ | ○ |
| Aviation fuel | ◆ | ○ | ◆ | ◆ | ○ |
| Barium chloride | ○ | ○ | ○ | ○ | ○ |
| Benzene | ◆ | ◆ | ◆ | ◆ | ○ |
| Benzoic acid | ○ | ○ | ○ | ○ | ○ |
| Blast furnace gas | ◆ | ◆ | ◆ | ◆ | ◆ |
| Bleaching solution | ◆ | ◆ | ○ | ○ | ○ |
| Boiler feed water | ◆ | ◆ | ○ | ◆ | ◆ |
| Borax | ○ | ○ | ○ | ○ | ○ |
| Boric acid | ○ | ○ | ○ | ○ | ○ |
| Brine | -- | ○ | ○ | ○ | ○ |
| Butane | ◆ | ○ | ◆ | ◆ | ○ |
| Butanol | ○ | ◆ | ○ | ○ | ○ |
| Butanone | ◆ | ◆ | ○ | ◆ | ◆ |
| Butyl acetate | ◆ | ◆ | ○ | ◆ | ◆ |
| Butylamine | ◆ | ○ | ◆ | ◆ | ◆ |
| Butyle alcohol | ○ | ◆ | ○ | ○ | ○ |
| Butyric acid | ◆ | ◆ | ○ | ◆ | ◆ |
| Caesium melt | ◆ | ◆ | ◆ | ◆ | ◆ |
| Calcium chloride | ○ | ○ | ○ | ○ | ○ |
| Calcium hydroxide | ○ | ○ | ○ | ○ | ○ |
| Calcium hydroxide | ◆ | ○ | ○ | ◆ | ○ |
| Calcium hypochlorit | ◆ | ◆ | ○ | ○ | ○ |
| Calcium sulphate | -- | ○ | ○ | -- | -- |
| Carbolic acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Carbon dioxide | ○ | ○ | ○ | ○ | ○ |
| Carbon disulphide | ◆ | ◆ | ◆ | ◆ | ○ |
| Carbon tetrachlorid | ◆ | ◆ | ◆ | ◆ | ○ |
| Castor oil | ○ | ○ | ○ | ○ | ○ |
| Chlorine water | ◆ | ◆ | ◆ | ◆ | ○ |
| Chlorine, dry | ◆ | ◆ | ◆ | ◆ | ○ |
| Chlorine, moist | ◆ | ◆ | ◆ | ◆ | ○ |
| Chloroform | ◆ | ◆ | ◆ | ◆ | ○ |
| Chromic acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Citric acid | ○ | ○ | ○ | ○ | ○ |
| Clorotrifluoride | ◆ | ◆ | ◆ | ◆ | ◆ |
| Condensation water | ◆ | ○ | ○ | ◆ | ◆ |
| Copper acetate | ◆ | ◆ | ○ | ◆ | ◆ |

| Medium | NR | NBR-GW | EPDM-KTW | CSM | FKM-Viton |
|---|---|---|---|---|---|
| Copper sulphate | ○ | ○ | ○ | ○ | ○ |
| Creosote | ◆ | ◆ | ◆ | ◆ | ○ |
| Cresol | ◆ | ◆ | ◆ | ◆ | ○ |
| Crude oil | ◆ | ○ | ◆ | ◆ | ○ |
| Cyclohexanol | ◆ | ○ | ◆ | ◆ | ○ |
| Decahydronaphthalen | ◆ | ◆ | ◆ | ◆ | ○ |
| Dibenzyl ether | ◆ | ◆ | ◆ | ◆ | ○ |
| Dibutyl phthalate | ◆ | ◆ | ○ | ◆ | ◆ |
| Diesel oil | ◆ | ○ | ◆ | ◆ | ○ |
| Dimethyl formamide | ◆ | ◆ | ○ | ◆ | ◆ |
| Diphyl | ◆ | ◆ | ◆ | ◆ | ○ |
| Ethane | ◆ | ○ | ◆ | ◆ | ○ |
| Ethanol | ○ | ◆ | ○ | ○ | ○ |
| Ethyl acetate | ◆ | ◆ | ○ | ◆ | ◆ |
| Ethyl alcohol | ○ | ◆ | ○ | ◆ | ○ |
| Ethyl chloride | ◆ | ◆ | ◆ | ◆ | ○ |
| Ethyl ether | ◆ | ◆ | ◆ | ◆ | ◆ |
| Ethyl ether | ◆ | ◆ | ◆ | ◆ | ◆ |
| Ethylendiamine | ○ | ○ | ○ | ◆ | ◆ |
| Ethylene | ◆ | ○ | ◆ | ◆ | ◆ |
| Ethylene chloride | ◆ | ◆ | ◆ | ◆ | ○ |
| Ethylene glycol | ○ | ○ | ○ | ○ | ○ |
| Fluorine dioxide | -- | ◆ | ◆ | -- | -- |
| Fluorine gaseous | -- | ◆ | ◆ | -- | -- |
| Fluorine liquid | ◆ | ◆ | ◆ | ◆ | ◆ |
| Fluorosilicic acid | ◆ | ◆ | ◆ | ◆ | ◆ |
| Formaldehyde | ○ | ○ | ○ | ○ | ◆ |
| Formamide | ○ | ◆ | ○ | ○ | ◆ |
| Formic acid 10% | ◆ | ◆ | ○ | ○ | ◆ |
| Freon 12 | ◆ | ○ | ◆ | ○ | ◆ |
| Freon 22 | ◆ | ◆ | ○ | ○ | ◆ |
| Generator gas | -- | ○ | ◆ | -- | ○ |
| Glacial acetio acid | ◆ | ◆ | ○ | ◆ | ◆ |
| Glycerin | ○ | ○ | ○ | ○ | ○ |
| Heating oil | ◆ | ○ | ◆ | ◆ | ○ |
| Heptane | ◆ | ○ | ◆ | ◆ | ○ |
| Hydraulic oil (mineral) | ◆ | ○ | ◆ | ◆ | ○ |
| Hydraulic oil (phosphat ester) | ◆ | ◆ | ○ | ◆ | ○ |
| Hydrazine hydrate | ◆ | ◆ | ○ | ◆ | ◆ |
| Hydrochloric acid (10%) | ◆ | ◆ | ○ | ○ | ○ |
| Hydrochloric acid (37%) | ◆ | ◆ | ○ | ◆ | ◆ |
| Hydrofluorid acid | ◆ | ◆ | ○ | ○ | ○ |
| Hydrofluosilic acid | ○ | ○ | ○ | ○ | ○ |
| Hydrogen | ○ | ○ | ○ | ○ | ○ |
| Hydrogen chloride (dry) | ◆ | ◆ | ○ | ○ | ○ |
| Hydrogen peroxide 3% | ◆ | ◆ | ○ | ○ | ○ |
| Hydrogen peroxide 90% | ◆ | ◆ | ◆ | ◆ | ○ |
| Hydrogen sulfide | ◆ | ◆ | ○ | ◆ | ◆ |
| Isooctane | ◆ | ○ | ◆ | ◆ | ○ |
| Isopropyl alcohol | ○ | ◆ | ○ | ○ | ○ |
| Kerosene | ◆ | ○ | ◆ | ◆ | ○ |
| Lactic acid | ○ | ○ | ○ | ○ | ○ |
| Lead acetate | ○ | ◆ | ○ | ◆ | ◆ |
| Lead arsenate | -- | ○ | ○ | -- | -- |

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## Chemical Resistance Table

*Subject to technical alterations.*
*Status: June 2005*

○ *Resistant* ◆ *Not recommended*
◆ *Condit. recommended* -- *No Data*

| Medium | NR | NBR-GW | EPDM-KTW | CSM | FKM-Viton |
|---|---|---|---|---|---|
| Linseed oil | ◆ | ○ | ◆ | ◆ | ○ |
| Lithium melt | ◆ | ◆ | ◆ | ◆ | ◆ |
| Magnesium sulphate | ○ | ○ | ○ | ○ | ○ |
| Malic acid | ◆ | ○ | ○ | ○ | ○ |
| MEK butanone | ◆ | ◆ | ○ | ◆ | ◆ |
| Methane | ◆ | ○ | ◆ | ◆ | ○ |
| Methyl alcohol | ○ | ◆ | ○ | ○ | ◆ |
| Methyl chloride | ◆ | ◆ | ◆ | ◆ | ○ |
| Methyl cloride | ◆ | ◆ | ◆ | ◆ | ○ |
| Methylene chloride | ◆ | ◆ | ◆ | ◆ | ◆ |
| Mineral oil | ◆ | ○ | ◆ | ◆ | ○ |
| Monochlorethane | ◆ | ◆ | ◆ | ◆ | ○ |
| Naphtha | ◆ | ◆ | ◆ | ◆ | ◆ |
| Natural gas | ◆ | ○ | ◆ | ◆ | ○ |
| Nitric acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Nitrobenzene | ◆ | ◆ | ◆ | ◆ | ○ |
| Nitrogen | ○ | ○ | ○ | ○ | ○ |
| Octane (n) | ◆ | ◆ | ◆ | ◆ | ○ |
| Oil | ◆ | ○ | ◆ | ◆ | ○ |
| Oleanolic Acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Oleic acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Oxalic acid | ◆ | ◆ | ○ | ◆ | ○ |
| Oxygen, gaseous, cold | ◆ | ◆ | ○ | ◆ | ○ |
| Palmitic acid | ◆ | ○ | ◆ | ◆ | ○ |
| Patable water | ○ | ○ | ○ | ○ | ○ |
| Pentane | ◆ | ○ | ◆ | ◆ | ○ |
| Perchlorethylene | ◆ | ◆ | ◆ | ◆ | ○ |
| Petroleum | ◆ | ○ | ◆ | ◆ | ○ |
| Petroleum benzin | ◆ | ◆ | ◆ | ◆ | ○ |
| Petroleum ether | ◆ | ○ | ◆ | ◆ | ○ |
| Phenol | ◆ | ◆ | ◆ | ◆ | ○ |
| Phosphoric acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Polychl.biphenyls. | ◆ | ◆ | ◆ | ◆ | ○ |
| Potass.chrom.sulph. | -- | ◆ | ○ | -- | ○ |
| Potassium acetate | ○ | ◆ | ○ | ◆ | ◆ |
| Potassium carbonate | ○ | ○ | ○ | ○ | ○ |
| Potassium chlorate | ◆ | ◆ | ○ | ○ | ○ |
| Potassium chloride | ○ | ○ | ○ | ○ | ○ |
| Potassium cyanide | ◆ | ◆ | ○ | ○ | ○ |
| Potassium cyanide | ○ | ○ | ○ | ○ | ○ |
| Potassium dichrom. | ◆ | ◆ | ○ | ○ | ○ |
| Potassium hydroxide | ◆ | ◆ | ○ | ○ | ◆ |
| Potassium hypochl. | -- | ◆ | ◆ | -- | -- |
| Potassium iodide | ○ | ○ | ○ | ○ | ○ |
| Potassium melt | ◆ | ◆ | ◆ | ◆ | ◆ |
| Potassium nitrate | ◆ | ○ | ○ | ○ | ◆ |
| Potassium nitrite | ○ | ○ | ○ | ○ | ○ |
| Potassium permang. | ◆ | ◆ | ○ | ○ | ○ |
| Propane | ◆ | ○ | ◆ | ◆ | ○ |
| Pydraul C | ◆ | ◆ | ◆ | ◆ | ○ |
| Pydraul E | ◆ | ◆ | ◆ | ◆ | ○ |
| Pyridine | ◆ | ◆ | ◆ | ◆ | ◆ |
| Rape seed oil | ◆ | ○ | ◆ | ◆ | ○ |
| Rubidium melt | ◆ | ◆ | ◆ | ◆ | ◆ |

| Medium | NR | NBR-GW | EPDM-KTW | CSM | FKM-Viton |
|---|---|---|---|---|---|
| Sea Water | ○ | ○ | ○ | ○ | ◆ |
| Salicylic acid | ○ | ○ | ○ | ○ | ○ |
| Sea water | ○ | ○ | ○ | ○ | ○ |
| Silicon oil | ○ | ○ | ○ | ○ | ○ |
| Skydrol 500, 7000 | ◆ | ◆ | ○ | ◆ | ◆ |
| Soap, solution | ◆ | ○ | ○ | ○ | ○ |
| Soda | ○ | ○ | ○ | ○ | ○ |
| Sodium aluminate | -- | ◆ | ◆ | -- | -- |
| Sodium bicarbonate | ○ | ○ | ○ | ○ | ○ |
| Sodium bisulphite | ◆ | ○ | ○ | ○ | ○ |
| Sodium chloride | ○ | ○ | ○ | ○ | ○ |
| Sodium cyanide | ○ | ○ | ○ | ○ | ○ |
| Sodium hydroxide | ◆ | ◆ | ○ | ○ | ◆ |
| Sodium melt | ◆ | ◆ | ◆ | ◆ | ◆ |
| Sodium silicate | ○ | ○ | ○ | ○ | ○ |
| Sodium sulfide | ◆ | ○ | ○ | ○ | ○ |
| Sodium sulphate | ○ | ○ | ○ | ○ | ○ |
| Spirit | ○ | ◆ | ○ | ○ | ○ |
| Starch | ○ | ○ | ○ | ○ | ○ |
| Steam (max. 150 °C) | ◆ | ◆ | ○ | ◆ | ◆ |
| Stearic acid 100°C | ◆ | ◆ | ◆ | ◆ | ○ |
| Sugar | ○ | ○ | ○ | ○ | ○ |
| Sulphur dioxide | ◆ | ◆ | ○ | ◆ | ○ |
| Sulphuric acid | ◆ | ◆ | ◆ | ◆ | ○ |
| Sulphurous acid | ◆ | ◆ | ○ | ○ | ○ |
| Table salt | ○ | ○ | ○ | ○ | ○ |
| Tannic acid | ○ | ○ | ○ | ○ | ○ |
| Tannin | ○ | ○ | ○ | ◆ | ○ |
| Tar | ◆ | ◆ | ◆ | ◆ | ○ |
| Tartaric acid | ○ | ○ | ○ | ○ | ○ |
| Tetrachloroethane | ◆ | ◆ | ◆ | ◆ | ◆ |
| Tetrahydronaphthale | ◆ | ◆ | ◆ | ◆ | ○ |
| Toluene | ◆ | ◆ | ◆ | ◆ | ○ |
| Town gas (benzene free) | ◆ | ○ | ◆ | ◆ | ○ |
| Transformer oil | ◆ | ○ | ◆ | ◆ | ○ |
| Trichloroethylene | ◆ | ◆ | ◆ | ◆ | ○ |
| Triethanolamine | ◆ | ◆ | ◆ | ◆ | ◆ |
| Turpentine | ◆ | ◆ | ◆ | ◆ | ○ |
| Urea | ○ | ○ | ○ | ○ | ○ |
| Vinyl acetate | ◆ | ◆ | ◆ | ◆ | ◆ |
| Water 100°C | ◆ | ◆ | ○ | ◆ | ◆ |
| Water flask | ○ | ○ | ○ | ○ | ○ |
| Water vapour (max. 150°C) | ◆ | ◆ | ○ | ◆ | ◆ |
| White spirit | ◆ | ◆ | ◆ | ◆ | ○ |
| Xylene | ◆ | ◆ | ◆ | ◆ | ○ |