

KLINGER®KGS

Rubber-Metal-Gaskets – Media resistance



EPDM
DN 80
PN 10-40



CSM
DN 80
PN 10-40



FKM
DN 80
PN 10-40

www.klinger-elastomere.de

The present table of chemical resistance serves as a guideline for the rubber-steel gaskets KLINGER®KGS. This information is based on our present state of knowledge. If in doubt, use our free security service.

KLINGER –
worldwide leader in gaskets

KLINGER® KGS

Rubber-Metal-Gaskets – Media resistance

Medium	NR	NBR	EPDM	CSM	FKM
Acetaldehyde	●	▲	●	■	▲
Acetamide	▲	●	●	■	■
Acetic acid	■	▲	●	▲	▲
Acetic acid ester	▲	▲	●	●	▲
Acetone	●	▲	●	■	▲
Acetylene	●	●	●	●	●
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 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	■	■	●	■	▲
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	▲	▲	▲	▲	▲
Ethylendiamine	●	●	●	■	▲
Ethylene	▲	●	▲	▲	▲
Ethylene chloride	▲	▲	▲	▲	●
Ethylene glycol	●	●	●	●	●
Fluorine dioxide	▲	▲	▲	▲	▲
Fluorine gaseous	▲	▲	▲	▲	▲
Fluorine liquid (dry)	▲	▲	▲	▲	■
Fluorosilicic acid	▲	▲	▲	▲	■
Formaldehyde	●	●	●	●	■
Formamide	●	▲	●	●	■
Formic acid 10%	■	▲	●	●	▲
Freon 12	■	●	■	●	■
Freon 22	■	▲	●	●	▲
Fuel oil (crude oil basis)	▲	●	▲	▲	●
Generator gas	▲	●	▲	▲	●
Glacial acetio acid	■	▲	●	▲	▲
Glycerin	●	●	●	●	●
Heating oil	▲	●	▲	▲	●
Heptane	▲	●	▲	▲	●
Hydraulic oil (mineral-based)	▲	●	▲	▲	●
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	●	■	●	▲	▲

It is not possible to select the right sealing material by just using this media resistance table!

Please use the KLINGER documentation for making a safe decision.

Medium	NR	NBR	EPDM	CSM	FKM
Lead arsenate		●	●		
Linseed oil	■	●	■	■	●
Lithium melt	▲	▲	▲	▲	▲
Magnesium sulphate	●	●	●	●	●
Malic acid	▲	●	●	●	●
MEK butanone	▲	▲	●	■	▲
Methane	▲	●	▲	■	●
Methyl alcohol	●	■	●	●	▲
Methyl chloride	▲	▲	▲	▲	●
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	▲	■	▲	■	●
Petrol ether	▲	●	▲	▲	●
Phenol	▲	▲	■	▲	●
Phosphoric acid	▲	▲	■	▲	●
Polychl.biphenyls.	▲	▲	▲	▲	●
Potassium chromium sulphate		■	●		●
Potassium acetate	●	■	●	▲	▲
Potassium carbonate	●	●	●	●	●
Potassium chlorate	■	▲	●	●	●
Potassium chloride	●	●	●	●	●
Potassium cyanide	▲	■	●	●	●
Potassium dichrom.	■	■	●	●	●
Potassium hydroxide	■	■	●	●	▲
Potassium hypochlorite		▲	■		
Potassium iodide	●	●	●	●	●
Potassium melt	▲	▲	▲	▲	▲
Potassium nitrate	▲	●	●	●	■
Potassium nitrite	●	●	●	●	●
Potassium permanganate	▲	▲	●	●	●
Propane	▲	●	▲	■	●
Pydraul C	▲	▲	▲	▲	●
Pydraul E	▲	▲	■	▲	●
Pyridine	▲	▲	■	▲	▲
Rape seed oil	▲	●	■	■	●
Rubidium melt	▲	▲	▲	▲	▲
Salicylic acid	●	●	●	●	●
Sea water	●	●	●	●	■
Silicon oil	●	●	●	●	●

Medium	NR	NBR	EPDM	CSM	FKM
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	▲	▲	▲	▲	●

▲ Not recommended

■ Conditionally recommended

● Resistant

Subject to technical changes.
Status: May 2015