

Media - Materials - Seals - Resistance chart

Resistance index:

resistant : +
conditional: O
non-resistant: -
empty: please enquire

	Galvanised steel	Passivated brass	Stainless steel No.1.4404/1.4571	Polyamide / PA 11/12	Polyacetal resin / POM	to DIN / ISO 1629		
						NBR	FKM	EPDM
Acetate (ethyl- and amyl-)	+	+	+	+	+	+	+	+
Acetic acid 10%	-	-	+	-	-	+	+	+
Acetone	+	+	+	+	+	+	+	+
Acetylene	+	+	+	+	+	+	+	+
Aircraft engine oil/turbine oil	+	+	+	+	O	+	+	+
Alkaline	-	O	+	+	O	+	+	+
Alum	-	-	+	+	+	+	+	+
Ammonia solution	-	-	+	O	O	+	+	+
Ammonia, liquid	O	-	+	+	-	+	+	+
Ammonium nitrate	+	-	+	+	+	+	+	+
Ammonium sulphate solution	-	-	+	+	+	+	+	+
Amyl alcohol	+	+	+	+	+	+	+	+
Aniline	+	-	+	O	O	+	+	+
Aviation fuel, jet fuel	+	+	+	-	+	+	+	+
Barium chloride	+	+	O	+	+	+	+	+
Barium sulphide	O	+	+	+	+	+	+	+
Benzene	+	+	+	+	+	+	+	+
Benzol	+	+	+	+	+	+	+	+
Blast furnace gas	O	+	+	-	O	+	+	+
Borax	+	+	+	+	+	+	+	+
Butane	+	+	+	+	+	+	+	+
Butyl alcohol	-	+	+	+	+	+	+	+
Calcium hydroxide	+	+	+	+	O	+	+	+
Carbon dioxide, dry	+	+	+	+	+	+	+	+
Carbon	+	+	+	+	+	+	+	+
Carbon disulphide	+	+	+	+	+	+	+	+
Carbonic acid	-	+	+	+	+	+	+	+
Carbonic acid, liquid	-	+	+	+	O	+	+	+
Caustic brine	-	-	+	O	O	+	+	+
Caustic soda	-	O	+	+	+	+	+	+
Chromic acid	-	-	O	O	-	+	+	+
Citric acid	-	+	+	-	O	+	+	+
Coal gas	O	+	+	+	+	+	+	+
Coal tar oil	+	+	+	+	O	+	+	+
Coke oven gas	O	+	+	O	O	+	+	+
Compressed air	+	+	+	+	+	+	+	+
Cooling water	O	O	+	+	O	+	+	+
Copper chloride	+	+	O	-	+	+	+	+
Creosote	+	+	+	+	+	+	+	+
Cresol	+	O	+	-	-	+	+	+
Cresol/cresylic acid	+	+	+	+	+	+	+	+
Crude oil	+	+	+	+	+	+	+	+
Cyclohexane	+	+	+	O	+	+	+	+
Diesel oil	+	+	+	+	+	+	+	+
Diesel oil up to 120°C	+	O	+	O	-	+	+	+
Essential oils	+	+	+	+	+	+	+	+
Ethanolamine	+	+	+	+	+	+	+	+
Ethyl alcohol, technical	+	+	+	+	+	+	+	+
Ethylene	+	+	+	+	+	+	+	+
Formalin	+	+	+	O	+	+	+	+
Formic acid	-	O	O	-	-	+	+	+
Freon F 11-12	+	+	+	+	+	+	+	+
Gas containing naphthalene	+	+	+	+	O	+	+	+
Glucose	+	+	+	+	+	+	+	+
Glycerine	+	+	+	+	+	+	+	+
Glycol	O	+	+	+	+	+	+	+
Heat transfer oil 200 °C (with FFKM up to 310°)	+	+	+	-	-	+	+	+
Helium	+	+	+	+	+	+	+	+
Hexane	+	+	+	+	+	+	+	+
Home heating oil	+	+	+	O	-	+	+	+
Home heating oil S	+	+	+	O	+	+	+	+
Hot air up to 120°C	+	O	+	O	O	+	+	+
Hot air up to 200°C	+	+	+	-	-	+	+	+
HSA - Oil-in-water emulsion VDMA 24317	-	+	+	+	+	+	+	+
HSB - Water-in-oil-emulsion VDMA 24317	-	+	+	+	+	+	+	+
HSC - Glycol-water mixture VDMA 24317	-	+	+	+	+	+	+	+
HSD - Synthetic oils VDMA 24317	O	+	+	+	+	+	+	+
Hydraulic oil, mineral-based	+	+	+	O	O	+	+	+
Hydraulic pressurised fluids, SE	O	+	+	+	+	+	+	+
Hydrocarbons	+	O	+	+	+	+	+	+
Hydrocarbons (highly-chlorinated)	O	+	+	+	+	+	+	+
Hydrocyanic acid	+	-	+	+	+	+	+	+
Hydrogen	+	+	+	+	+	+	+	+
Hydrogen gas	O	O	+	+	+	+	+	+
Hydrogen peroxide	-	-	+	+	-	+	+	+
Hydrogen sulphide, dry	+	+	+	O	+	+	+	+
Hydrogen sulphide, moist	+	O	+	+	-	+	+	+
Illuminating gas	+	+	+	+	+	+	+	+
Isopropyl alcohol	+	+	+	O	+	+	+	+
Kerosene JP1	+	+	+	+	+	+	+	+
Ketone (ethyl methyl)	+	+	+	+	+	+	+	+
Linseed oil	+	+	+	+	+	+	+	+
Lubricating oil	+	+	+	+	+	+	+	+
Magnesium carbonate	+	+	+	+	+	+	+	+

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						NBR	FKM	EPDM
Magnesium hydroxide	+	O	+	+	+	+	+	+
Magnesium sulphate	-	+	+	+	+	+	+	+
Mercury	+	-	+	+	+	+	+	+
Methane	+	+	+	+	+	+	+	+
Methanol	+	+	+	+	+	+	+	+
Methyl alcohol	+	+	+	O	+	+	+	+
Methyl benzol	+	+	+	+	+	+	+	+
Methyl ethyl ketone	+	+	+	O	+	+	+	+
Milk	-	+	+	+	+	+	+	+
Mineral oil	+	+	+	+	+	+	+	+
Naphta	+	+	+	+	+	+	+	+
Naphthalene	+	+	+	+	+	+	+	+
Naphthenic acid	+	+	+	+	+	+	+	+
Natural gas synthetic	O	+	+	+	+	+	+	+
Natural gas	+	+	+	+	+	+	+	+
Nitric acid up to 35%	-	-	+	-	-	+	+	+
Nitro solvent (no synthetic resin thinner)	+	+	+	-	+	+	+	+
Nitrogen	+	+	+	+	+	+	+	+
Oleic acid	+	-	+	O	+	+	+	+
Olein fatty acid	+	+	+	+	+	+	+	+
Oxalic acid	O	O	-	O	-	+	+	+
Oxygen (grease-free)	O	+	+	+	O	+	+	+
Paraffin	+	O	+	+	+	+	+	+
Pentachlorophenol	+	+	+	+	+	+	+	+
Petroleum	+	+	+	+	+	+	+	+
Petroleum ether	+	+	+	+	+	+	+	+
Petroleum ether, refined	+	+	+	+	+	+	+	+
Phenol solution 1%, 20°C	O	+	+	-	-	+	+	+
Phosphate ester	O	+	+	+	+	+	+	+
Phosphoric acid 10%	+	+	+	+	+	+	+	+
Plant oils	+	+	+	+	+	+	+	+
Potassium cyanide	+	-	+	+	O	+	+	+
Potassium dichromate	+	-	+	-	O	+	+	+
Potassium hydroxide	-	-	O	O	O	+	+	+
Potassium sulphate	+	O	+	+	+	+	+	+
Propane gas	+	+	+	+	+	+	+	+
Seawater	-	+	+	+	+	+	+	+
Soap solution	-	O	+	+	O	+	+	+
Soda solution	-	O	+	+	O	+	+	+
Sodium acetate	+	+	+	+	+	+	+	+
Sodium bicarbonate	+	+	+	+	+	+	+	+
Sodium carbonate	+	+	+	+	+	+	+	+

General resistance properties

The details given here constitute only a small selection of all possible material combinations and are subject to change and only for initial orientation. Based on tests, recommendations and the experience of our suppliers, they apply to a) pure substances, b) room temperature if nothing else is specified, c) aqueous solutions of moderate temperature in the case of salts, acids, etc., and d) non-aggressive conditions. Other factors to be noted are the site of operation, the country-specific requirements and the exact composition of the medium.

Many other material combinations are available for all other substances, aggregate states, etc. not specified here, be these pure substances or homogeneous/heterogeneous mixtures. WALTHER combines the optimal suitable materials with the function and design of the quick coupling to create a tailor-made and safe solution: also with special materials such as **hastelloy** and seals such as **FFKM** when required.