

Resistance table



Which materials for which fluids?

The resistance table supports you in your search for suitable materials and compiles information on the chemical resistance of sealing and enclosure materials for gaseous and liquid media. **The table is subject to updating.

Contents of the resistance table

- The suitability of the materials is confirmed by a simple "+".
For some media, only the minimum requirement is confirmed with a "+". This means that higher quality materials can also be used.
 - Ask if you are unsure, even if a medium is not listed.
 - Operating conditions cannot be derived from the table.
 - There is no such thing as an unconditional application. Therefore, also consider operational dependencies such as pressure, temperature, viscosity, concentration, degree of contamination. These can have a negative effect on the longevity of the valve.
 - The table does not claim to be complete.
 - No warranty claims can be derived from the information given.
 - We reserve the right to change the information given at any time without notice.

Technical hotline Germany +49 5731 18660 99

Media	Density (kg/m³)	Gaseous		Material Sealing																					
		EPDM	FKM	FKM	FKM/FKM	EPDM/EPDM	EPDM/PTFE	FKM	FKM	NBR	NBR/NBR	PCTFE	PEEK-HT	Peek/PTFE	PEEK/PICTFE-HP	PEEK/UHMW-PE	POM	PTFE/FKM	PTFE/Pek	PTFE/Silikon	AlSi 304 - 1.4301	AlSi 316 - 1.4408	AlSi 316 Ti - 1.4571(81)	AlSi 316L - 1.4404	AlSi 316L - 1.4435
Nitric acid aqueous 40%, HNO ₃	1100																								
Nitrogen dioxide NO ₂	2.053																								
Nitrogen Gas N2	1.25	ja	+					+	+	+	+						+	+							
Nitrogen oxides, nitrous gases NOx		ja																							
Nitrous Oxide N2O	2	ja						+		+							+	+							
Odorant		ja						+									+	+							
Oxygen Liquid, -183°C LOX	1140																+								
Oxygen O2	1.43	ja							+	+							+	+							
paint, ink - highly viscous			+						+								+	+							
Phenol, Carbolic Acid - diluted with water								+									+	+							
Propane/Butane gaseous C3H8	2	ja							+								+	+							
Propionic acid C3H6O2	990								+								+	+							
propylene glycol C3H8O2									+								+								
Propylene, Propene - C3H6	1.915	ja							+								+	+							
Rape Oil									+	+							+								
refrigerant R290, R600a																	+	+	+						
Refrigerant R407C	2.51	ja															+	+	+						
Resins									+								+	+	+						
sea water	1000									+															
sewage gas, proportionally H2S, NH ₃	0.77	ja	+																						
silan gas	1.34	ja							+								+	+		+	+				
slurry of chalk									+								+								
Sodium hydroxide (sodium hydroxide), NaOH, 30%, +20°C			+														+		+						
sodium hypochlorite NaOCl (Chlorine bleach) max. 12%, +20°C																	+								

Media	Density (kg/m³)		Gaseous		Material Sealing		Material Housing	
	0.9	1.000	ja	+	EPDM	-30°C 140°C	AISI 304 - 1.4301	CC49K red brass
Vacuum + Pressure	0.9	1.000	ja	+	EPDM/EPDM	-30°C 140°C	AISI 316L - 1.4408	CW617N brass
vapour aggressive (natural gas + steam)	0.9	1.000	ja	+	EPDM/EPTE	-30°C 120°C	AISI 316 Ti - 1.4571(81)	EN-GJ-250 grey cast steel
Water demineralised, Osmose	1.000	1.000	+	+	FKM	-15°C 200°C	AISI 316L - 1.4404	EN-GP240GH cast steel
Water H2O with Glycole	1.000	1.000	+	+	FKM	-10°C 120°C	AISI 316L 1.4462	EN-S1025 ductile iron
Water, H2O	1.000	1.000	+	+	FKM/FKM	-30°C 140°C	AISI 5165M - 1.4418	P250GH+N - C22.8 FN160
Water, Hot above 90°C H2O	1.000	1.000	+	+	Metal/Willis®	-20°C 400°C	aluminium AL. anodised	PTFE
					Metal/Hp	-30°C 80°C		Polytetrafluoroethylene chloride
					NBR	-30°C 80°C		PVC Polyvinyl chloride
					NBR/NBR	-30°C 80°C		
					PCTFE	-200°C 90°C		
					PEEK-HT	-30°C 250°C		
					Peek/PC/TFE	-40°C 80°C		
					PEEK/PICTFE-HP	-10°C 140°C		
					PEEK/UHMW-PE			
					POM	-30°C 90°C		
					PTFE	-10°C 230°C		
					PTFE/FKM	-30°C 200°C		
					PTFE/Pek	-30°C 90°C		
					PTFE/Silikon	-30°C 230°C		