

Contents of the resistance table

- Technical hotline Germany +49 5731 18660 99

			Material Sealing																				Material Housing																					
Media	Density (kg/m³)	Gaseous	EPDM -30°C 140°C	EPDM/EPDM -30°C 140°C	EPDM/PTEE -30°C 120°C	FKM -15°C 200°C	FKM -11°C 140°C	FKM/FKM -10°C 120°C	Metal -40°C 300°C	Metal/HP -40°C 80°C	Metal/Wills® -20°C 400°C	NBR -10°C 80°C	NBR/NBR -10°C 80°C	PCTFE -200°C 90°C	PEEK-HT (Wills®) -40°C 250°C	Peek/PCTFE -40°C 90°C	PEEK/PCTFE-HP -190°C 140°C	PEEK/HMW-PE	POM -10°C 90°C	PTFE -190°C 250°C	PTFE/FKM -10°C 150°C	PTFE/NBR -20°C 90°C	PTFE/Peek -11°C 100°C	Silikon/PTEE -40°C 230°C	AlSi 304 - 1.4301 -190°C 250°C	AlSi 316 -190°C 300°C	AlSi 316 Ti -190°C 300°C	AlSi 316 Ti - 1.4571(8) - -20°C 160°C	AlSi 316L - 1.4404 -190°C 80°C	AlSi 316L - 1.4435 -40°C 250°C	AlSi 318LN - 1.4462 -40°C 250°C	AlSi 316SM - 1.4418 -40°C 80°C	aluminium AL anodised -20°C 180°C	CC69K red brass -40°C 200°C	CW617N brass -190°C 300°C	EN-GJ250 grey cast PN16 -10°C 300°C	EN-GP240GH cast steel PN40 -20°C 300°C	EN-JS1025 ductile iron -10°C 300°C	P250GH+N - C22.8 PN160 -10°C 300°C	PTFE Polytetrafluoroethylene	PVC I Polyvinyl chloride			
potassium hydroxide KOH, 20%, aqueous 20°C	1000		+																	+						+	+																	
potassium hydroxide KOH, 50%, aqueous 60°C	1000																			+						+	+																	
2-methylpentan, isohexane, liquid																				+	+					+	+																	
Acetic acid, 50% CH3COOH	1005																			+							+														+			
Acetone CH3COCH3	791		+														+			+	+					+		+																
Acetylene C2H2	1.17	ja	+									+					+			+						+		+				+												
Adblue	1087						+													+						+	+	+																
Additives for Fuels							+													+	+					+	+	+																
Air	1.2	ja	+	+	+		+					+					+		+	+	+	+		+	+	+	+	+	+													+		
Ammoniac NH3	0.77	ja	+		+												+			+						+	+	+													+			
Antifrogen N	1140																				+																							
Argon Ar	1.78	ja			+		+					+					+			+		+				+	+																	
Argon, liquified cryogenic -186°C															+					+						+		+													+			
Bilge Water (water-oil mix)	1000		+				+					+								+	+							+												+	+	+		
Biodiesel, Rapsmethylester (RME)	885						+													+						+	+	+																
biogas (wet, max. 3% H2S)		ja					+													+						+																		
Biogas <= 0,5% H2S		ja					+					+					+			+	+					+	+	+												+		+		
Brake Fluid	1100		+	+																+							+	+										+	+		+			

Media	Density (kg/m³)	Gaseous	Material Sealing																		Material Housing																						
			EPDM -30°C 140°C	EPDM/EPDM -30°C 140°C	EPDM/PTFE -30°C 120°C	FFKM -15°C 200°C	FKM -11°C 140°C	FKM/FKM -10°C 120°C	Metal -40°C 300°C	Metal/HP -40°C 80°C	Metal/Wills® -20°C 400°C	NBR -10°C 80°C	NBR/NBR -10°C 80°C	PCTFE -200°C 80°C	PEEK-HT (Wills®) -40°C 250°C	Peek/PCTFE -40°C 80°C	PEEK/PCTFE-HP -198°C 140°C	PEEK/UHMW-PE	POM -10°C 90°C	PTFE -198°C 230°C	PTFE/FKM -10°C 150°C	PTFE/NBR -20°C 80°C	PTFE/Peek -10°C 80°C	Silikon/PTFE -40°C 230°C	AlSi 304 - 1.4301 -198°C 250°C	AlSi 316 -198°C 300°C	AlSi 316 Ti -198°C 300°C	AlSi 316 Ti - 1.4571(81) -20°C 160°C	AlSi 316L - 1.4404 -198°C 80°C	AlSi 316L - 1.4435 -40°C 250°C	AlSi 316LN - 1.4462 -40°C 250°C	AlSi S105M - 1.4418 -40°C 80°C	aluminium AL anodised -20°C 180°C	CC499K red brass -40°C 200°C	CW617N brass -198°C 300°C	EN-GJL250 grey cast PN16 -10°C 300°C	EN-GP240GH cast steel PN40 -20°C 300°C	EN-JS1025 ductile iron -10°C 300°C	P250GH+N - C22.8 PN160 -10°C 300°C	PTFE Polytetrafluoroethylene	PVC Polyvinyl chloride		
Butadien C4H6	2.4	ja																		+					+		+																
Calibration gas, test gas, dry	0.72	ja					+								+					+	+				+					+													
chlorine gas, dry Cl2																				+	+							+															
CNG - Compressed Natural Gas	0.7	ja									+		+			+				+					+		+			+				+		+							
CO carbon monoxide	1.25	ja			+		+				+				+					+	+				+		+			+				+	+	+	+						
CO2 carbon dioxide gas	1.98	ja			+		+			+					+					+	+	+			+		+		+			+	+	+	+								
Coke oven gas	0.6	ja					+																		+	+					+												
Condensate			+				+													+					+		+						+	+	+	+	+						
Condensate 200°C																				+	+				+	+						+	+	+	+	+							
Cool Emulsion, Cooling Water	1000		+				+	+			+				+					+	+				+	+	+					+	+	+	+								
Dimethylether DME	2	ja																		+	+				+	+	+																
Dipropylenglycolmethylether DPM																				+	+				+		+																
dirty Fluids							+				+										+				+		+					+	+										
Eisen-(III)-Chlorid (Ferrochlorid) FeCl3 - Lösung	1000		+																																								+
Ethane C2H6	1.36	ja					+				+				+					+					+		+			+			+	+									
Ethanol	789		+		+										+					+	+				+	+	+					+	+	+	+								
Ethylacetat CH3 CO2 CH2 CH3	894																			+	+				+	+						+	+	+	+								
Ethylene C2H4	1.26	ja					+				+									+		+			+							+	+										
Ethylene glycol C2H6O2 50%	1000		+																						+																		
flour, powder, dust, soot			+				+				+																	+			+												
Flue Gas SOX, SO2, N2, O2, CO		ja											+		+					+						+	+									+							
Formic Acid HCOOH 50% 20°C	1000																			+						+	+																
Forming Gas		ja					+				+									+	+	+				+						+	+	+									
Fuel Oil	920						+				+				+					+	+				+	+							+	+	+	+							
gaseous, liquid, aggressive		ja										+								+					+	+								+									

			Material Sealing																		Material Housing																						
Media	Density (kg/m³)	Gaseous	-30°C EPDM 140°C	-30°C EPDM/EPDM 140°C	-30°C EPDM/PTFE 120°C	-15°C FFKM 200°C	-11°C FKM 140°C	-10°C FKM/FFKM 120°C	-40°C Metal 300°C	-40°C Metal/HP 80°C	-20°C Metal/Wills® 400°C	-10°C NBR 80°C	-10°C NBR/NBR 80°C	-200°C PCTFE 80°C	-40°C PEEK-HT (Wills®) 250°C	-40°C Peek/PCTFE 80°C	-198°C PEEK/PCTFE/HP 140°C	PEEK/UHMW-PE	-10°C POM 90°C	-198°C PTFE 250°C	-10°C PTFE/FKM 150°C	-20°C PTFE/NBR 80°C	-10°C PTFE/Peek 80°C	-40°C Silikon/PTFE 230°C	-198°C AlSi 304 - 1.4301 250°C	-198°C AlSi 316 300°C	-198°C AlSi 316 Ti 300°C	-20°C AlSi 316 Ti - 1.4571(81) 160°C	-198°C AlSi 316L - 1.4404 80°C	-40°C AlSi 316L - 1.4435 250°C	-40°C AlSi 318LN - 1.4462 250°C	-40°C AlSi S165M - 1.4418 80°C	-20°C aluminium AL anodised 180°C	-40°C CC499K red brass 200°C	-198°C CW617N brass 300°C	-10°C EN-GJL250 grey cast PN16 300°C	-20°C EN-GP240GH cast steel PN40 300°C	-10°C EN-JS1025 ductile iron 300°C	-10°C P250GH+H - C22.8 PN160 300°C	PTFE Polytetrafluoroethylene	PVC Polyvinyl chloride		
Gases flammable		ja					+					+					+				+				+		+								+	+	+	+					
Gasoline, Dieseloil, Fuels	800						+					+									+	+					+	+							+	+	+	+	+				
Glycerine aqueous, H2O with C3H8O3	1260						+														+				+																		
granules, sand, gravel, chalk			+				+					+																		+		+											
Grinding oil with dirt and abrasion particles							+														+				+																		
HCL Hydrogen chloride gas	1.64	ja					+														+	+					+																
Helium Gas He	0.18	ja			+		+			+		+					+				+					+	+	+		+		+					+						
heptane (hexan, petrol)	684						+					+									+	+				+	+	+								+							
high viscous Fluids up to 1000 mm³/s							+														+				+		+									+							
Hot Air ≤ 180°C	1.2	ja																			+	+			+		+							+	+	+	+	+	+				
hot Gases 230°C	1	ja													+						+						+	+									+		+				
Hydraulic Oil	800						+					+						+			+		+			+		+							+	+	+	+					
Hydrogen H2	0.09	ja			+		+			+					+	+	+				+	+				+	+	+		+			+			+			+				
Hydrogen Peroxide 0,5% H2O2, +20°C	1000						+														+						+	+															
Hydrogen Sulfide, gas, dry, H2S	1.6	ja	+				+														+	+				+	+	+														+	
Isobutane C4H10	2.51	ja					+														+	+				+		+								+							
isoprene C5H8	681																				+	+				+	+	+															
Isopropanol CH3 CH(OH)CH3	786						+														+	+				+	+	+							+	+							
JP-8 jet fuel aviation, kerosine	800						+									+					+	+				+	+	+								+		+					
Liquid Nitrogen -196°C LN2														+							+					+		+								+							
Liquid Carbon Dioxide LCO2							+							+							+	+				+		+								+							
LNG liquified natural gas -162°C	1590													+							+						+		+								+						
LPG liquified petrol gas propane, butane	600						+														+	+				+	+	+							+	+		+	+	+			
Lubricant, gear oil CLP460	900						+															+														+							
Mercaptane		ja				+										+					+	+				+	+	+					+										

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Methane CH4	0.72	ja			+		+					+			+		+			+		+			+	+	+				+				+	+	+	+	+				
Methanol Alcohol CH3OH	793		+		+											+					+					+	+	+															
Methylethylketon, MEK	805																				+						+																
Mineral Oil	800						+					+					+				+					+	+	+								+	+	+	+				
Motor Oil	800						+					+					+				+	+				+	+	+								+	+	+	+				
natural Gas CH4	0.7	ja			+		+			+		+		+	+		+				+	+	+			+	+	+		+				+	+	+	+	+	+	+			
neogas NE	0.84	ja					+					+																									+						
Nitric acid aqueous 40%, HNO3	1100						+														+	+					+	+														+	
Nitrogen dioxide NO2	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, Carbollic Acid - diluted with water						+															+						+	+															
Propane/Butane gaseous C3H8	2	ja					+					+				+				+	+					+	+	+						+	+	+	+	+	+	+			
Propionic acid C3H6O2	990						+														+	+				+	+	+															
propylene glycol C3H8O2							+					+									+															+	+	+					
Propylene Glycol Methyl Ether	920																				+							+															
Propylene, Propene - C3H6	1.915	ja					+														+					+	+	+								+	+						
Rape Oil							+														+							+								+	+	+	+				
refrigerant R290, R600a																					+	+				+	+	+								+	+						
Refrigerant R407C	2.51	ja																			+	+				+	+	+								+	+						

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Resins							+													+	+				+	+	+																		
sea water	1000																																												
sewage gas, proportionally H2S, NH3	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																				+							+																		
Sodium nitrite - aqueous NaNO2	1290						+					+								+						+	+	+																	
Sodium Phosphate NA3PO4							+										+			+	+					+	+	+			+														
sodium silicate (waterglass)	1000						+					+								+	+					+	+	+																	
Sole (cooling sole) up to 40%			+									+																+									+								
Steam ≤ 140°C	0.6		+																	+						+	+	+									+	+	+	+	+				
Steam ≤ 200°C																				+	+						+	+							+	+		+							
Steam ≤ 230°C															+												+	+								+		+							
Steam ≤ 250°C									+		+				+												+	+								+		+							
Steam ≤ 300°C									+		+																+	+								+		+							
Steam ≤180°C	0.6	ja																		+	+					+	+									+	+	+	+	+					
Sulfur Dioxide Gaseous, dry SO2	2.93	ja																		+	+					+	+	+											+						
Sulfur Dioxide Gaseous, wet, SO2	2.93	ja																		+								+																	
Sulfur Dioxide Liquid SO2																				+	+					+	+	+																	
Sulfuric acid H2SO4 max. 10%, 20°C	1.6	ja					+																					+																	
Synthetic air (21% O2 content)	1.2	ja					+													+						+		+									+	+	+						
Tetraflourmethane CF4, gas	1.69	ja																		+	+					+		+																	
Thermal-Oil >180°C	880																			+	+					+	+							+	+	+	+	+							
Thermal-Oil ≤ 200°C	880																			+								+							+		+								

[illegible]