Chemical resistance

Consequently, temperature, the concentration of agents, exposure periods and also mechanical load are all important criteria when testing for chemical resistance. The following table lists resistance to different chemicals. This information is provided to the best of our current knowledge and is designed to provide data about our products and their applications. Consequently it is not intended to provide any legally binding assurance or guarantee of the chemical resistance of our products or their suitability for a specific application. Any existing industrial property rights must be taken into account. For a more specific application, we recommend producing your own verification. Standard tests are performed under normal climatic conditions 23/50 in accordance with DIN 50 014.

	PI	PPEK, PEKEKK, PEK	PEEK	PPS	PEI	PES	PPSU	PSU	PTFE	PVDF	PA 6, PA 6 C	PA 66	PA 12	PA 6 C + Elastomer	PC	PET, PBT	POM-C	POM-H	PP	PE	ABS	PPE
Acetamide 50%			+						+	+	+	+	+	+			+	+		+	+	
Acetone	+	+	+	+	–	–	–	–	+	o	+	+	o	+	–	o	+	+	+	+	–	–
Formic acid, aqueous solution 10%	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	o	–	–	+	+	+	+
Ammonia, aqueous solution 10%	–	+	+	+	–	o		o	+	+	o	o	o	o	–	–	+	o	+	+	+	+
Anone						–			+	o	+	+	+	+	–			+	+	o		
Benzine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	+	+	+	o	o	o	–
Benzene	+		+	o	–	+	–	–	+	o	+	+	+	+	–	o	+	+	–	–	–	–
Bitumen	+		+						+		+	+	o		–		+	+	o	+		
Boric acid, aqueous solution 10%		+	o			+		o	+	+	–	–	–	–	+	–	–	–	+	+	+	
Butyl acetate	+		+	+	–	–	–	–	+	–	+	+	+	+	–	–	+	+	o	o	–	
Calcium chloride, aqueous solution 10%	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+	+	+	
Chlorbenzene	+		+	o	o	–	–	–	+	o	+	+	+	+	–	–	+	+	o	–	–	
Chloroform	+		+	+	–	–	–	–	+	+	–	–	–	–	–	–	–	–	o	–	–	–
Cyclohexane	+		+	+	+	+	+	o	+	+	+	+	+	+	–	+	+	+	+	+	+	+
Cyclohexanone	+		+	+		–	–	–	+	o	+	+	+	+	–	–	+	+	+	+	–	+
Diesel oil	+		+	+	+	+	+	+	+	+	+	+	+	+	o	+	+	+	o	+	+	+
Dimethyl formamide	o		+	+		–	–	–	+	–	+	+	o	+	–	+	+	o	+	+	–	
Diocthyl phthalate			+	+	o	+	+	o	+	o	+	+	+	+	o	+	+	+	+	+		+
Dioxane	+		+	+	+	o	–	–	+	+	+	+	+	+	–	o	o	o	+	+		o
Acetic acid, concentrated	o		o	+	–	+	+	–	+	o	–	–	–	–	–	–	–	–	o	o	–	+
Acetic acid, aqueous solution 10%	+		+	+	+	+	+	+	+	+	–	–	o	–	+	o	+	o	+	+	+	+
Acetic acid, aqueous solution 5%	+		+	+	+	+	+	+	+	+	+	+	o	+	+	+	+	o	+	+	+	+
Ethanol 96%	+	+	+	+	+	+	+	+	+	+	o	o	o	o	o	+	+	+	+	+	+	+
Ethylacetate	+		+	+	o	–	o	–	+	o	+	+	+	+	–	o	+	+	+	+		+
Ethyl ether	+		+	+	+	+	+	+	+	+	+	+	+	+	–	+	+	+	+	+		
Ethylene chloride	+				+				+		+	+	o	+	–	–	–	–	+	o	–	
Hydrofluoric acid, 40%			–	o	–	–	–	–	o	+	–	–	–		–	–	–	–	+	+	o	+
Formaldehyde, aqueous solution 30%		+	+	+	+	+	+	+	+	+	o	o	o	o	+		+	+	+	+	+	+
Formamide			+						+		+	+	o	+		+	+	o		o		
Freon, frigen, liquid	+	–	–	+		+		+	+		+	+	+	+	–	+		+	–	o	o	+
Fruit juices	+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+	+	o	+	+	+	+
Glycol	+	+	+	+	o	+	+	+	+	+	+	+	+	+	+	o	o	o	+	+	+	+
Glysantine, aqueous solution 40%	+	+	+	+		+		+	+	+	+	+	+		+	+	+	+	+	+		+
Glycerine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	+	+	+	+	+	+	+
Urea, aqueous solution	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fuel oil	+	+	+	+		+	+	o	+	+	+	+	+	+	o	+	+	+	o	+	+	+
Heptane, hexane	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	+	+
Iso-octane	+		+		+	+	+	o	+		+	+	+					+	+	+	+	+
Isopropanol	+		+	+	+	+	+	o	+	+	+	+	o	+	–	o	+	+	+	+	o	+
Iodine solution, alcohol solution	+		o				+	o	+	+	–	–	–	–	–			o	+	+	o	+
Potassium lye, aqueous solution 50%	–	+	+	+		+	+	o	+	o	o	o	o	o	–	–	+	–	+	+	+	+
Potassium lye, aqueous solution 10%	o		+	+	o	+	+	+	+	o	+	+	+	+	–	–	+	–	+	+	+	+
Potassium dichromate, aqueous solution 10%	–								+	+	+	+	o		+	+	+	o	+	+	+	+

+ resistant o conditionally resistant – not resistant, also depending on concentration, time and temperature

	PI	PPEK, PEKEKK, PEK	PEEK	PPS	PEI	PES	PPSU	PSU	PTFE	PVDF	PA 6, PA 6 C	PA 66	PA 12)	PA 6 C + Elastomer	PC	PET, PBT	POM-C	POM-H	PP	PE	ABS	PPE
Potassium permanganate, aqueous solution 1%	+	+	+	+	+		+	+	+	+	–	–	–	–	+	+	+	+	+	+	o	+
Cupric (II) sulphate, 10%	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	–	+	+	+	+
Linseed oil	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Methanol	+		+	+	o	+	o	o	+	o	+	+	o	+	–	+	+	+	+	+	o	+
Methyl ethyl ketone	+	+	+	+	–	–	o	–	+	o	+	+	+	+	–	o	o	o	o	o	–	–
Methylene chloride	+		+	o		–	–	–	+	+	o	o	–	o	–	–	o	o	–	o	–	
Milk	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Lactic acid, aqueous solution 90%	+		+	+	+	o			+	+	–	–	o	–	+		+	–	+	+	–	–
Lactic acid, aqueous solution 10%	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+	+	+	+
Sodium carbonate, aqueous solution 10%	o	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+	+	+	+
Sodium chloride, aqueous solution 10%	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sodium bisulphite, aqueous solution 10%	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	–	–	+	+	+	
Sodium nitrate, aqueous solution 10%	+		+	+					+	+	+	+	+	+	o	+	+	+	+	+	+	
Sodium thiosulphate, aqueous solution 10%	+		+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Soda lye, aqueous solution 5%	o		+	+	o	+	+	+	+	o	+	+	+	+	–	o	+	–	+	+		+
Soda lye, aqueous solution 50%	–	+	+	+	–	+	+	+	o	o	o	o	o	o	–	–	+	–	+	+	+	+
Nitrobenzene	+		o	o		–			+	o	–	–	–	–	–	o	o	o	+	+	–	
Oxalic acid, aqueous solution 10%	+	+	+	+		+	+	+	+	+	o	o	o	o	+	+	–		+	+	+	+
Ozone	o		+				+	+	+	+	–	–	–	–	+	o	–	–		o		
Paraffin oil	+		+	+	+	+	+		+	+	+	+	+	+	–	+	+	+	+	+	+	+
Perchlorethylene	+		+	+	+	–	o	–	+	+	o	o	–	o	–	o	o	o	–	–	o	
Petroleum	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+
Phenol, aqueous solution	+		o	+		–	–	–	+	+	–	–	–	–	–	–	–	–	+	+	o	
Phosphoric acid, concentrated	o	+	+	+				+	+	+	–	–	–	–		+			+	+	+	
Phosphoric acid, aqueous solution 10%	o	+	+	+	+		+	+	+	+	–	–	–	–	+	+	o	–	+	+	+	+
Propanol	+		+		+		+	+	+	+	+	+	–	+	+	+	+	+	+	+	+	+
Pyridine	–		+	o	–	–			+	o	+	+	o	+	–		o	o	o	o	–	
Salicylc acid	+		–						+	+	+	+	+	+		o		–		+	+	
Nitric acid, aqueous solution 2%	+	+	+	+	+	+	+	+	+	+	–	–	–	–	o	+	–	–	+	+	+	–
Hydrochloric acid, aqueous solution 2%	+	+	+	+	+	+	+	+	+	+	–	–	o	–	+	+	–	–	+	+	+	+
Hydrochloric acid, aqueous solution 36%	–	+	+	o	+	+	+	o		+	–	–	–	–	o	–	–	–	+	+	+	+
Hydrogen sulphide	+		+	+		o			+	+	+	+	+	+	–	+	+	+	o	o	–	
Sulphuric acid, concentrated 98%	–	–	–	+	–	–	–	–	+	o	–	–	–	–	–	–	–	–	+	o	–	–
Sulphuric acid, aqueous solution 2%	+	+	+	+	+	+	+	+	+	+	–	–	–	–	+	+	+	–	+	+	+	+
Hydrogen sulphide, aqueous solution		+	+	+		+	+	+	+	+	+	+	+	+	+	+	+		+	+	–	+
Soap solution, aqueous solution	o	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+
Silicon oils	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Soda solution, aqueous solution 10%	o								+	+	+	+	+		+	+		+	+	+	+	
Edible fats, edible oils	+	+	+	+	+	+	+	o	+	+	+	+	+	+	+	+	+	+	+	+		+
Styrene	+		+						+	o	+	+	+	+	–	o	+	+	o	o		–
Tar	+		+		+	+	+		+		o	o	o	o		+	+	+	+			
Carbon tetrachloride	+		+	+	+	+	o	–	+	+	+	+	–	+	–	+	o	o	–	–	–	–
Tetrahydrofurane	+		+	+	+	–	–		+	o	+	+	+	+	–	o	o	o	o	o	–	
Tetralin	+		+						+		+	+	+	+	–	+	o			o	–	
Toluene	+	+	+	o	–	–	o	–	+	+	+	+	+	+	–	o	+	o	+	o	–	
Transformer oil	+			+		+	+	+	+	+	+	+	+	+		+	+	+	o	+		+
Triethanolamine	–		o	o					+	o	+	+	+	+	–	+	+	–	+	+	+	
Trichlorethylene	+	+	+	o	–	–	–	–	+	+	o	o	o	o	–	–	–	–	o	o	–	–
Vaseline	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	o	+	
Wax, molten	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+	o	o		+
Water, cold	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Water, warm	–	+	+	+	+	+	+	+	+	+	o	o	o	o	o	–	o	–	o	o	+	+
Hydrogen peroxide, aqueous solution 30%	–	o		o		+	+	+	+	o	–	–	–	–	+	+	–	–	+	+		+
Hydrogen peroxide, aqueous solution 0.5%	+		+	+		+	+	+	+	+	–	–	–	–	+	+	+	o	+	+	+	+
Wine, brandy	+		+			+	+	+	+	+	o	o	o	o	+	+	+	+	+	+	+	+
Tartaric acid	+	+	+			+			+	+	+	+	+		+	+	o	o	+	+	+	+
Xylene	+	+	+	+	–	o	o	–	+	+	+	+	o	+	–	o	+	+	–	–	–	–
Zinc chloride, aqueous solution 10%	+	+	+	+	+	+	+	+	+	+	o	o	o	o	+	+	+	–	+	+	+	+
Citric acid, aqueous solution 10%	+	+	+		+	+	+	o	+	+	o	o	o	o	+	+	o	–	+	+	+	+