

CORROSION RESISTANCE

against high corrosive process media

Media (介质)			Wetted parts (接触部件材质)							Seal (密封材质)					
Corrosive media (腐蚀性介质)	浓度	温度	99.9% Al ₂ O ₃ ceramic** 陶瓷	316L / 1.4435 不锈钢	Hastelloy (哈氏C-276)	Monel (蒙奈尔400)	Tantalum 钽	Titanium 钛 (poss. +2% Pd)	Nickel TSP-option 镍	PTFE 聚四氟乙烯	Kalrez / Chemraz	EPDM (三元乙丙橡胶)	Viton FPM(氟橡胶)	Neoprene CR(氯丁橡胶)	Perbuan NBR (丁晴橡胶)
	% Concentration	Temperature °C													
Acetone 丙酮 CH ₃ -CO-CH ₃ Ketones	100	RT	A	A	A	A	A	A	A	A	A	A	C	C	C
(Dimethylceton) 二甲基	100	S	A	A	A	A	A	A	A	A	A	A	C	C	C
Ammonia gas 氨气	conc.	Rt	A	A	A	C	A	A	C	A	A	A	C	C	A
Ammonia liquid 液氨 NH ₃	conc.	100	A	A	A	C	A	A	C	A	A	B	C	B	C
Ammonia Solution 氨溶液 NH ₃ unorg. lyes	10	Rt	A	A	A	C	A	A	C	A	A	C	B	A	B
	10	s	A	C	A	C	C	A	C	A	A	C	B	A	B
	20	s	A	C	A	C	C	A	C	A	A	C	B	A	B
	25	s	A	C	A	C	C	A	C	A	A	C	B	A	B
	conc.	Rt	A	A	A	C	A	A	C	A	A	C	B	A	B
	conc.	100	A	C	A	C	A	A	C	A	A	C	B	A	B
Acetic acid 醋酸 CH ₃ -COOH org.acid	10	Rt	A	A	A	A	A	A	C	A	A	C	C	A	C
	10	s	A	A	A	A	A	A	C	A	A	C	C	A	C
	50	Rt	A	A	A	A	A	A	C	A	A	C	C	A	C
	50	s	A	A	A	A	A	A	C	A	C	C	C	A	C
	conc.	Rt	A	A	A	A	A	A	C	A	C	C	C	A	C
	conc.	s	A	C	A	A	A	A	C	A	C	C	C	A	C
Chlorine gas wet 湿氯气 Cl ₂	100	Rt	A	C	A	C	A	B	A	A	N	N	A	C	C
Chlorine 氯气 Cl ₂	100	Rt	A	A	A	C	A	C	A	A	C	C	A	C	C
		70	A	C	A	A	A	C	A	A	C	C	A	C	C
Chloroacetic acid 氯乙酸 CH ₂ Cl-COOH org.acid	50	20	A	C	A	A	A	A	A	A	C	C	C	C	C
	70	s	A	C	A	B	A	A	B	A	C	C	C	C	C
	100	Rt	A	C	A	B	A	A	B	A	C	C	C	C	C
	100	s	A	C	A	B	A	A	B	A	C	C	C	C	C
Chlorosulfonic acid 氯磺酸 SO ₂ (OH)Cl org.acid	100	Rt	A	A	A	B	A	C	B	A	C	A	C	C	C
			A	C	A	C	A	C	C	A	C	C	C	C	C
Formic acid 蚁酸 H-COOH org.acid	10	Rt	A	A	A	A	A	A	A	A	C	A	B	B	C
	10	65	A	A	B	B	A	A	B	A	C	B	B	B	C
	10	s	A	A	C	C	A	A	C	A	C	B	B	B	C
	20-40	65	A	A	B	C	A	A	C	A	C	B	B	B	C
	50	65	A	A	A	A	A	A	A	A	C	C	B	B	C
	50	s	A	A	C	C	A	C	C	A	C	C	B	B	C
	80	Rt	A	A	A	A	A	A	A	A	C	A	B	B	C
	80	65	A	C	B	C	A	B	C	A	C	C	B	B	C
	80	20	A	C	C	C	A	C	C	A	C	A	B	B	C
	conc.	Rt	A	A	A	A	A	A	A	A	C	A	B	B	C
	conc.	s	A	C	C	C	A	C	C	A	C	C	B	B	C
Hydrofluoric acid 氢氟酸 HF unorg.acid	1	Rt	A	C	A	A	C	C	A	A	A	C	A	B	C
	40	Rt	A	C	A	A	C	C	A	A	A	C	A	B	C
	40	50	C*	C	A	A	C	C	B	A	A	C	A	C	C
	50	Rt	A	C	A	A	C	C	A	A	A	C	A	B	C
Hydrogen fluoride HF gas 氢氟酸气	100	Rt	C*	C	A	A	C	C	A	A	A	C	A	C	C

According to Philips (1/88) to ASV Stübbe and to Du Pont (Kalrez

* recommended option: Sapphire membrane (A = fully resistant)

** for 96% ceramic see Philips table

A	充分耐腐蚀
B	耐腐蚀
C	不可用
N	无数据

Rt: 室温

s: 沸腾

conc.: 浓缩

sat.: 饱和

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	% Concentration	Temperature °C													
Sodium hydroxide 氢氧化钠 (Caustic soda) NaOH unorg.lyes	10	Rt	A	A	A	A	A	A	A	A	A	A	C	A	B
	10	s	A	A	A	A	A	A	A	A	A	C	C	A	B
	20	Rt	A	A	A	A	A	A	A	A	A	A	C	A	B
	20	s	A	A	A	A	B	A	A	A	A	C	C	A	B
	50	Rt	A	A	A	A	B	A	A	A	A	C	C	A	B
	50	s	A	A	A	A	B	B	A	A	A	C	C	A	B
	sat.	s	A	A	B	B	C	B	A	A	A	C	C	A	B
Oleum 发烟硫酸 unorg.acid H ₂ SO ₄ + SO ₃	conc.	Rt	A	B	A	A	A	C	A	A	N	C	A	C	C
	conc.	50	A	B	B	B	C	C	B	A	N	C	A	C	C
Phosphoric acid 磷酸 H ₃ PO ₄ unorg.acid	10	Rt	A	A	A	A	A	A	A	A	A	A	A	A	B
	10	s	A	C	A	C	A	C	C	A	A	A	A	A	C
	45	Rt	A	A	A	A	A	B	A	A	A	A	A	A	B
	45	s	A	C	A	C	A	C	C	A	A	C	A	A	C
	conc.	Rt	A	C	A	B	A	B	B	A	A	A	A	A	B
conc.	100	A	C	C	C	A	C	C	A	A	C	A	A	C	
Nitric acid 硝酸 HNO ₃ unorg.acid	25	Rt	A	A	A	C	A	A	C	A	A	A	B	C	C
	25	s	A	A	C	C	A	B	C	A	C	C	B	C	C
	50	Rt	A	A	A	C	A	A	C	A	A	C	B	C	C
	50	s	A	A	C	C	A	B	C	A	C	C	B	C	C
	70	100	A	C	C	C	A	A	C	A	C	C	B	C	C
Hydrochloric acid 盐酸 HCl unorg.acid	10	Rt	A	C	A	C	A	A	B	A	A	A	A	B	C
	10	50	A	C	C	C	A	A	C	A	A	C	A	B	C
	10	s	A	C	C	C	A	C	C	A	A	C	B	C	C
	20	Rt	A	C	A	C	A	A	B	A	A	A	A	B	C
	20	s	A	C	C	C	A	C	C	A	A	C	B	C	C
	37	Rt	A	C	C	C	A	C	C	A	A	A	A	B	C
	37	100	A	C	C	C	A	C	C	A	A	C	B	C	C
Hydrochloric acid+nitric acid unorg.acid HCl : HNO ₃ (3:1) Aqua Regia) 王水	conc.	Rt	A	C	B	C	A	A	C	A	B	B	B	C	C
Sulfuric acid 硫酸 H ₂ SO ₄ unorg.acid	10	Rt	A	A	A	A	A	A	A	A	A	A	A	C	C
	10	s	A	C	B	A	A	B	C	A	B	C	A	C	C
	50	Rt	A	B	A	A	A	B	A	A	A	A	A	C	C
	50	s	A	C	C	C	A	C	C	A	B	C	A	C	C
	96	Rt	A	A	A	C	A	C	C	A	C	C	A	C	C
	96	100	A	C	C	C	C	C	C	A	C	C	A	C	C
Sulfuric acid+nitric acid H ₂ SO ₄ : HNO ₃	10 90	35	A	N	A	C	A	A	C	A	N	N	B	C	C
	50 50	35	A	N	A	C	A	A	C	A	N	N	B	C	C
	90 10	35	A	N	A	C	A	B	C	A	N	N	A	C	C
Zinc chloride 氯化锌 ZnCl ₂	10	Rt	A	A	A	A	A	A	A	A	B	A	A	A	B
	10	s	A	A	A	A	A	A	B	A	B	A	A	A	B
	60	Rt	A	A	A	A	A	A	B	A	B	A	A	A	B
	60	s	A	A	B	B	A	B	B	A	B	A	A	A	B
	sat.	s	A	C	B	B	A	C	B	A	B	A	A	A	B

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