Technical Information:
Refractory Metals Resistance to Corrosive Materials Guide

	Carpenter 20 (High-Nickel Stainless Steel)	Columbium	Hastelloy C-276 (Nickel-Chromium-Molybdenum)	Hastelloy B-2 (Nickel-Molybdenum)	Monel No. 400 (Nickel-Copper)	Stainless Steel 316	Tantalum	Titanium	Zirconium
Acetic acid, 50%, boiling	1	1	1	1	1, 2	1	1	1	1
Aluminum chloride, 5%	1	1	1	1	1, 2	3	1	1	4
Ammonium chloride, 50%	1	1	1	4	1, 2	1#	1	4	1
Ammonium sulfate, saturated, boiling	1	4	2	1	1, 2	1#	1	4	4
Bromine, dry	1	4	2	1	1, 2	1#	1	4	4
Bromine, water	1, 2	1	1	3	3	3	1	4	4
Caustic soda	1	3	1	1	1	1	3	4	4
Chlorine gas, dry, 25°C	1	1	1	1	1	3	1	3	2
Chlorine gas, moist, 25°C	3	1	1	3	4	3	1	1	3
Chlorine gas, moist, 100°C	3	1	3	3	3	3	1	1	3
Chlorosulfonic acid, 10%	3	4	1	1	1, 2	3	1	4	4
Chromium-plating bath	1, 2	4	4	4	3	1, 2	1	4	4
Ferric chloride, 5% agitated	3	1	1	3	4	3	1	1	3
Flue gas	1, 2	4	1	2	4	1, 2	1	4	4
Flourine	2, 3	3	4	4	1	3	3	4	4
Hydrochloric acid, 38°C (all concentrations)	3	2	1	1	4	3	1	3	1
Hydrogen peroxide, 25°C	1	2	1	2	1, 2	1*	1	1	1
Lead, molten	4	4	1	1	3	3	1	4	4
Mine water, acid	1	4	1	1	3	1#	1	4	4
Nitric acid, 5%, 25°C	1	1	1	3	3	1	1	1	1
Nitric acid, conc., boiling	1	1	3	3	4	2	1	1	1
Potassium cyanide	1	4	1	1	1, 2	1	1	4	4
Sodium chloride, sat., boiling	1	4	1	1	1	1#	1	1	4
Sodium hypochlorite, 5%, 25°C	2	3	1	3	3	1#	4	2	2
Sulfur dioxide, moist 25°C	1	1	1	3	3	1	1	1	4
Sulfuric acid, 5%, 25°C	1	1	1	1	1, 2	2	1	2	1
Sulfuric acid, 50%, boiling	2, 3	3	3	1	3	3	1	3	1

Subject to pitting at air line or when allowed to dry
* Attack may occur when sulfuric acid is also present

1: Fully resistant
2: Some attack
3: Unsatisfactory
4: No data available

CONVECTRONICS