

CORROSION DATA

Ratings: A - Excellent
 B - Good
 C - Fair
 D - Not Recommended
 Blank - Insufficient Data

This information provides a rough guide in the selection of valve materials. Choice of materials must take into consideration specific conditions—temperature, pressure, surges, velocity and the other. The final selection of materials should be decided by the specific requirements of the environment.

Media	Ductile Iron	Bronze	Carbon Steel	304 Stainless Steel	316 Stainless Steel	Alloy 20	Hastelloy	Nitrile Rubber NBR	Viton	Teflon
Acetaldehyde	C	D	C	A	A	A	A	D	C	A
Acetylene	A	B	A	A	A	A	A	A	A	A
Alcohols	C	B	B	B	A	A	A	A	A	A
Ammonia Solutions	B	D	B	A	A	A	A	B	A	A
Benzene	B	B	B	B	A	A	B	A	A	A
Butane	B	A	B	A	A	A	A	A	A	A
Calcium Carbonate	D	C	D	B	A	B	B	A	A	A
Calcium Chloride	C	B	C	C	B	B	A	A	A	A
Calcium Hydroxide	C	A	C	B	B	B	A	A	A	A
Carbonic Acid	D	D	D	B	A	B	A	A	A	A
Carbon Tetrachloride (Dry)	B	C	B	A	A	B	B	D	B	A
Carbon Tetrachloride (Wet)	D	D	D	B	B	B	B	D	B	A
Chlorine Gas (Dry)	B	C	B	B	B	B	B	C	B	A
Chlorine Gas (Wet)	D	D	D	D	D	D	D	D	D	A
Coke Oven Gas	B	C	B	A	A	A	A	B	B	A
Ethane	B	A	B	A	A	A	A	A	A	A
Ethyl Chloride (Dry)	B	B	B	A	A	A	B	C		A
Ethyl Chloride (Wet)	D	C	D	B	B	A	B	C		A
Fatty Acids	D	B	D	B	A	A	A	B	A	A
Fluorine	D	D	D	D	D	B				A
Gasoline	B	A	A	A	A	A	A	C	A	A
Heptane	B	A	B	A	A	B	A	A	A	A
Hexane	B	B	B	A	A	B	A	A	A	A
Hydrochloric Acid	D	D	D	D	D	D	B	B	A	A
Hydrogen Gas	B	B	B	A	A	A	A	B	A	A
Hydrogen Peroxide	D	D	D	B	B	B	B	D		A
Hydrogen Sulfide	B	C	B	A	A	A	B	C	A	A
Hypo	C	C	D	A	A	B		A	A	A
Hypochlorites Sodium	D	D	D	D	C	C	C	C	A	A
Jet Fuel	A	A	A	A	A	A	A	A	A	A
Kerosene	B	A	B	A	A	A	A	A	A	A
Liquefied Pet. Gas	B	A	B	A	A	B	A	A	A	A
Methane	B	A	B	A	A	A	A	A	A	A
Naphtha	B	B	B	A	A	B	B	A	A	A
Natural Gas	B	B	B	A	A			A	A	A
Nitric Acid (10%)	D	D	D	A	A	A	C	C	A	A
Nitric Acid (80%)	D	D	D	A	A	A	C	D	B	A
Propane	B	A	B	A	A	A	A	A	A	A
Sea Water	D	B	D	A	A	A	A	A	A	A
Sodium Chloride	C	B	C	B	B	B	B	A	A	A
Sodium Hydroxide (Cold)	A	A	A	A	A	A	A	A	B	A
Sodium Hydroxide (50% Hot)	B	A	B	B	B	A	B	B	C	A
Sodium Hydroxide (70% Hot)	B	A	B	C	C	B	B		C	A
Sulfuric Acid (0-7%)	D	C	D	C	B	A	B	B	A	A
Sulfuric Acid (20%)	D	C	D	D	D	A	B	C	A	A
Sulfuric Acid (100%)	B	A	B	A	A	A	B	D	B	A
Sulfurous Acid	D	C	D	C	B	B	C	C	A	A
Toluene	A	A	A	A	A	A	A	D	B	A
Urea	C	B	C	B	B	B	B			A
Xylene	B	A	B	A	A	A		D	B	A