

LIGHTING EQUIPMENT MATERIALS – CORROSION RESISTANCE COMPARISON

	316	304	AL	P/P	FRP
General Outdoor	4	4	4	4	4
Marine Outdoor	4	4	3	4	4
General Industrial	4	4	3	4	4
Pure Water	4	4	4	4	4
Sea Water	4	4	2	4	4
ACIDS					
Acetic	4	4	3	4	4
Boric	4	4	4	4	4
Chromic	4	4	2	3	4
Citric	4	4	3	4	4
Fatty	4	4	4	4	4
Formic	4	3	1	4	4
Hydrochloric	1	1	1	3	3
Hydrofluoric	1	1	1	3	1
Nitric	4	4	3	3	2
Phosphoric	4	4	2	4	3
Picric	4	4	2	4	3
Sulfuric	3	2	1	4	3
Ammonium Hydroxide	4	4	3	4	4
SALTS					
Potassium Hydroxide	4	4	1	4	2
Sodium Hydroxide	4	4	1	4	2
Aluminum Sulfate	4	4	2	4	4
Ammonium Chloride	4	4	1	4	4
Ammonium Nitrate	4	4	4	4	4
Ammonium Phosphate	4	4	2	4	4
Borax	4	4	3	4	4
Copper Sulfate	4	4	1	4	4
Ferric Chloride	1	1	1	4	4
Ferric Sulfate	4	4	2	4	4
Magnesium Chloride	4	4	1	4	4
Magnesium Sulfate	4	4	3	4	4
Mercuric Chloride	2	2	1	4	4
Nickel Chloride	4	4	1	4	4
Potassium Chloride	4	4	1	4	4
Potassium Sulfate	4	4	4	4	4
Sodium Bicarbonate	4	4	3	4	4
Sodium Bisulfate	4	4	2	4	4
Sodium Chloride	4	4	2	4	4
Sodium Hypochlorite	4	3	1	4	4
Sodium Nitrate	4	4	4	4	4
Sodium Phosphate	4	4	1	4	4
Sodium Silicate	4	4	3	4	4
Sodium Sulfate	4	4	4	4	4
Sodium Thiosulfate	4	4	4	4	4
Zinc Chloride	4	4	1	4	4
Zinc Sulfate	4	4	3	4	4
Calcium Chloride	4	3	1	4	4
Sodium Carbonate	4	4	1	4	4

	316	304	AL	P/P	FRP
WET GAS					
Ammonia	4	4	4	4	4
Carbon Dioxide	4	4	4	4	4
Chlorine	4	4	1	4	4
Hydrogen Sulfide	4	4	4	4	4
Nitrogen Dioxide	4	4	2	4	4
Sulfur Dioxide	4	4	2	4	4
Carbon Disulfide	4	4	4	4	4
SOLVENTS					
Acetone	4	4	4	4	4
Benzene	4	4	4	3	4
Carbon Tetrachloride	4	4	3	3	4
Ethyl Acetate	4	4	4	4	4
Ethyl Alcohol	4	4	3	2	2
Ethyl Ether	4	4	4	4	4
Ethylene Dichloride	4	4	4	3	4
Ethylene Glycol	4	4	3	4	4
Freon	4	4	3	4	4
Methyl Alcohol	4	4	3	4	4
Methyl Ethyl Ketone	4	4	4	4	4
Methylene Chloride	4	4	4	3	4
Perchloro-Ethylene	4	4	4	3	4
Tichloro-Ethylene	4	4	4	3	4
Toluene	4	4	4	3	4
Xylene	4	4	4	3	4
OIL & FUEL					
ASTM No. 1 Oil	4	4	4	4	4
ASTM No. 3 Oil	4	4	4	4	4
Detergents	4	4	3	4	4
Gasoline	4	4	4	4	4
Grease	4	4	4	4	4
Jet Fuel	4	4	4	4	4
Hydraulic Fluid (ester)	4	4	4	4	4
Kerosene	4	4	4	4	4
Motor Oil	4	4	4	4	4

316 = 316 Stainless Steel
304 = 304 Stainless Steel
AL = Aluminum
P/P = Polyethelene
FRP = Fiberglass Reinforced Plastic

CORROSION RESISTANCE
EXCELLENT 4
GOOD 3
FAIR 2
POOR 1