Technical

Suggested Sheath Materials

The following table of recommendations should only be used as a guide. The proper choice should be based upon your knowledge of the conditions which exist in each application.

Compound	Copper	Lead	Aluminum	Nickel	Iron and Steel	Cast Iron NI Resist	300 Series Stainless	Monel	Inconel Incoloy
Acetic Acid,									
Crude	2	x	2	2	x	3	2	2	3
Pure	2	2	1	2	—	x	—	1	3
Vapors	2	x	3	2	—	x	—	2	3
150 PSI; 400˚F	2	x	3	2	—	—	—	2	3
Acetone	—	—	—	—	3	2	1	—	—
Alboloy Process	—	—	—	—	1	—	—	—	—
Aluminum Sulphate	2	1	3	3	x	3	2	2	—
Ammonia Gas									
Cold	3	1	1	—	1	1	1	1	—
Hot	x	x	—	—	3	3	3	3	—
Ammonia and Oil	—	—	—	—	1	—	—	—	—
Ammonium Chloride	x	1	x	2	3	1	2	2	—
Ammonium Hydroxide	x	1	2	—	1	1	1	3	1
Ammonium Nitrate	x	x	2	—	1	3	1	3	—
Ammonium Sulphate	2	1	—	—	1	1	1	1	—
Amyl Alcohol	1	—	—	—	—	—	—	1	—
Anhydrous Ammonia	x	—	—	—	1	—	—	—	—
Aniline, Aniline Oil	x	—	x	—	1	—	1	1	—
Aniline Dyes	—	—	—	—	—	—	1	1	—
Anodizing Solutions 10%	—	—	—	—	3	—	1	—	—
Chromic Acid 96˚F	—	—	—	—	3	—	1	—	—
Sulphuric Acid 70˚F	—	1	—	—	—	—	—	—	—
Sodium Hydroxide Alkaline	—	—	—	—	1	—	—	—	—
Nigrosine Black Dye	—	—	—	2	—	—	—	1	—
Nickel Acetate	—	3	—	2	—	—	—	1	—
Barium Hydroxide	x	x	x	1	—	—	1	—	—
Barium Sulphide	x	1	—	—	—	—	1	1	—
Bleaching Solution	—	—	—	2	—	—	—	1	—
1½lb. Oxalic Acid per Gallon of H_2O at 212˚F	—	—	—	—	—	—	—	—	—
Bonderizing	—	—	—	—	3	2	1	—	—
Cadmium Plating	—	—	—	—	—	—	—	—	1
Carbolic Acid, Phenol	x	1	1	—	3	3	1	1	1
Carbon Dioxide									
Dry	1	1	1	—	1	1	1	1	1
Wet	2	x	2	—	2	3	1	1	1
Carbon Tetrachloride	3	2	3	—	3	3	3	1	1
Castor Oil	—	—	1	—	1	—	1	1	1
Chloroacetic Acid	x	x	x	2	x	—	x	—	—
Chlorine									
Dry	1	1	1	—	1	1	1	1	—
Wet	x	2	x	—	x	x	x	x	—
Chromic Acid	x	1	x	—	3	3	1	2	3
Chrome Plating	—	1	—	—	—	—	—	—	—
Citric Acid	1	1	1	—	x	3	1	1	1
Cobalt Acetate 130˚F	—	—	—	—	—	—	—	1	1
Coconut Oil	—	—	—	1	—	—	—	2	—
Copper Chloride	3	1	x	—	2	—	x	2	—
Copper Cyanide	—	—	—	—	1	—	—	—	—
Copper Plating	—	—	—	—	1	—	—	—	—
Copper Sulphate	3	1	x	—	x	3	1	1	1
Creosote	1	—	1	—	1	1	1	1	—

Resistance Ratings: 1 = Good 2 = Fair 3 = Depends on Conditions x = Unsuitable