

Recommended Sheath Materials

Media Being Heated	Element Sheath Material																	*Notes	
	Iron & Steel	Gray Cast Iron	Cast Iron Ni-Resist	Aluminum	Copper	Lead	Monel 400	Nickel 200	304, 321, 347 Stn. Stl.	316 Stn. Stl.	Type 20 Stn. Stl.	Incoloy® 800	Inconel® 600	Titanium	Hastelloy B	Quartz	Graphite		Teflon®
Oxalic Acid	X	X	X	F	F	X	C	F	X	X	F	X	F	X		A	A	A	
Paint Stripper (High Alkaline Type)	A																		Note 1
Paint Stripper (Solvent Type)										A									Notes 1, 2
Paraffin	A	A		A	A		F		A	A	A								Notes 2, 7
Parkerizing™ (See Iron Phosphate)																			
Perchloroethylene	F	F		C	F	F	A	A	F	F	F	F	A	A		A			
Perm-A-Clor™									A										
Petroleum - Crude < 500°F	F	F	A	A	C	C	A	C	A	A	A				A	A			Notes 2, 3, 7
> 500°F	A		A	A	X	X	X	X	A										
> 1000°F	X			X	X	X	X	X	A347										
Phenol	F	F		F		X	F		C	F	F	F	F	A	A				
Phosphate										A								X	Notes 1, 5, 9
Phosphate Cleaner									A									X	Notes 1, 5, 9
Phosphatizing										A								X	Notes 1, 5, 9
Phosphoric Acid, Crude	C			X	X	C	X	X	C										
Pure < 45%	X	X	X	C	C	C	F	C	C	C	F	A	A	X					
> 45% Cold	X	X	X	X	F	C	F	C	A	F	F	A		X					
> 45% Hot	X	X	X	X	C	X	C	X	X	X	F	A	F	X					
Photo Fixing Bath									C	A									
Picric Acid	X	X		X	X	X	X	X	F	F	F	C	C			A	A	A	
Potassium Acid Sulfate															A		A		Note 1
Potassium Bichromate	C	F	F	F		F	F	F	A347	A	A	F		F	A	A		A	
Potassium Chloride	C	X	F	X	C	C	F	F	C	F	A	C	F	A		A	A		
Potassium Cyanide	C	X	F	X	X	X	C	F	F	F	F	F	F	X		A	C	A	
Potassium Dichromate									A347										
Potassium Hydrochloric																A		A	Note 1
Potassium Hydroxide	X	X		X	C	X	F	A	C	C	C	C	F	X		X	A	A	
Potassium Nitrate	F	F	F	A	F	F	F	F	F	F	F	F	F	A		A	A		
Potassium Sulfate	C	C	C	A	F	A	A	F	A	A	A	F	F	A		A	A	A	
Prestone™ 350°F	A						A												
R5 Bright Dip For Copper Polish at 180°F										A									
Reynolds Brightener																A		A	Note 1
Rhodium Hydroxide																A		A	
Rochelle Salt Cyanide	A								A										Note 1
Ruthenium Plating																A		A	Note 1
Silver Bromide	X	X		X	X		C	C	X	X	C			A		A	A	A	
Silver Cyanide	C	C		X	X		F		A	A	A	A				A			
Silver Lume									A										Note 1
Silver Nitrate	X	X		X	X	X	X	X	C	C	F	C	C	A		A	A		
Soap Solutions	A	A	A	X	C		A		A	A	A								Note 3
Sodium - Liquid Metal	C	X		X	X	X	F	A	A			A	A			X	X		

Corrosion Resistance Ratings:

A = Good

F = Fair

C = Depends on Conditions

X = Unsuitable

Blank = Data Not Available

* See Key to Notes in Material Selection Guide on Page 16-12.