



## SHEATH MATERIAL SELECTION CHART

<b>POWDER COATING</b>	<b>CHEMICALS USED (all mixed with water)</b>	<b>ELEMENTS</b>
1. Degreaser (60 - 80°C)	Alkaline Degreaser	Stainless - any wattage
2. Acid Rinse (40 - 50°C)	Phosphoric or Sulphuric Acid (30%)	Vitrosol or Teflon
3. Phosphating (60°C)	Iron Phosphate, Phosphoric Acid, Sodium Molybdate Mix	Stainless - lowest wattage possible
4. Passivating (50 - 60°C)	Sodium Dichromate, Chromic Acid Mix (very diluted)	Stainless - any wattage
<b>ELECTROPLATING</b>	<b>CHEMICALS USED (all mixed with water)</b>	<b>ELEMENTS</b>
1. Degreaser (60 - 70°C)	Alkaline Degreaser	Stainless - any wattage
2. Acid Pickle (40 - 50°C)	Hydrochloric Acid or Sulphuric Acid or mix of two (30%)	Vitrosol or Teflon
3. Electroplating Process a) Nickel (60°C) b) Chrome (40 - 45°C) c) Copper Alkaline (45°C) d) Copper Acid (25°C) e) Zinc Acid (25°C) f) Brass (40°C)	Nickel Sulphate, Nickel Chloride, Boric Acid Chromic Acid Copper Cyanide, Sodium & Potassium Cyanide Copper Sulphate & Sulphuric Acid Ammonium or Zinc Chloride Zinc, Copper Cyanide & Ammonium Chloride	Vitrosol or Titanium or Teflon Vitrosol Stainless Vitrosol Vitrosol or Teflon if heated Stainless, Vitrosol or Titanium
4. a) Nickel stripper (70°C) b) Stripper (stripping old plating before re-plating)	Cyanide Hydrofluoric Acid or Ammonium Difluoride	Stainless - any wattage Teflon only
<b>GALVANISING</b>	<b>CHEMICALS USED (all mixed with water)</b>	<b>ELEMENTS</b>
1. Degreaser (60 - 70°C)	Alkaline Degreaser	Stainless - any wattage
2. Acid Pickle	Hydrochloric / Sulphuric Acid	Vitrosol if heated
3. Flux (60°C)	Ammonium or Zinc Chloride (50%)	Vitrosol or Teflon
<b>ANNODISING</b>	<b>CHEMICALS USED (all mixed with water)</b>	<b>ELEMENTS</b>
1. Degreaser (50°C)	Caustic free Degreaser	Stainless - any wattage
2. Dyes (40°C)	Organic Dyes	Vitrosol
3. Seal (70°C) a) Boiling Water (100°C) b) Nickel based (70°C)	Water Nickel based sealer	Stainless Vitrosol