



## Future Coat Technology

### BRASS P 900

#### NITRIC – FREE CHEMICAL POLISH BRIGHT DIP PROCESS FOR BRASS

BRASS P 900 is a nitric / chromic acid free bright chemical polish dip for brass which produces a high lustrous brilliant finish on the articles and is free of dangerous and hazardous fumes and harmful effluents with the old process using strong minerals acids or cyanides.

#### APPLICATIONS :

- ❖ Brass handicrafts / wares
- ❖ Tags, contacts, eyelets
- ❖ Precisions screws and fasteners
- ❖ Travel and baggage accessories
- ❖ Safety pins and clips
- ❖ Builders hardware
- ❖ Trophies, badges and nameplates
- ❖ Light fittings & chandeliers
- ❖ Apparel & Footwear accessories – buttons, broaches, clips hooks, zippers etc.
- ❖ Brass wires , wire goods , etc.
- ❖ Furniture fittings, etc

#### ADVANTAGES

- ❖ **NON – FUMING** : It operates without the hazard of toxic nitric fumes has safer work environment.
- ❖ **NO NITRIC < CHROMIC OR CYNIDES** : It eliminates the handling of these hazardous and toxic chemicals making for safer operation effluent treatment

- ❖ **BRILLIANT LEVELED FINISH** : Its controlled polishing action eliminates the danger of over etching which is a major problem in nitric acid based bright dips. Consistent bright quality is achieved in mass production. Light tool marks and scratches get leveled out. The brightening and leveling effect of BRASS P 900 is of such a high degree that mechanical may, in many cases, be eliminated prior to plating. In many instances it can replace mechanical de-burring and vibratory finishing.
- ❖ **NELIGIBLE METAL LOSS**: As compared to the nitric based bright dips which attack the metal very vigorously resulting in heavy loss of metal in a very short dip time, the rate of polishing action in BRASS P 900 is highly controlled resulting in negligible loss of metal.
- ❖ **LUSTROUS FINISH** : The process produces a surface that accepts subsequent finishing operations such as plating , patinating and coloring, lacquering, etc. treated articles are found to plate quickly and evenly with improved brightness thereby requiring plating time as compared with parts bright dipped in the conventional manner.
- ❖ **RESISTS TARNISHING** : Surfaces remain bright and untarnished under normal indoor conditions for extended periods of time, and longer ,after being treated in BRASS P AT anti – tarnish dip.
- ❖ **RACK OR BARREL**: Parts may be racked (with gentle rod movement ) or processed bulk in barred or dipping baskets.
- ❖ **WATER BASED** : No drying is required after precleaning as is required prior to nitric based bright dips.

#### **EQUIPMENTS:**

1. **TANKS**: Polypropylene (PP), High density Polyethylene (HDPE) or PVC for BRASS P 900, BRASS P A, BRASS P B, BRASS P AT.
2. **HEATERS** : 316 stainless steel, quartz, or Teflon.
3. **COOLING COIL** : 304 or 316 stainless steel.
4. **JIGS / BARRELS & DIPPING BASKET'S** : PP , PVC or SS do not use mild steel <copper or brass.
5. **AGITATION** : Gentle rod or part movement recommended for vat operation. Barrel rotation of 3 to 4 rpm is recommended . Dipping baskets must be moved gently.

6. **VENTILATION** : Recommended, particularly for continuous and large production outputs.

**OPERATION METHOD:**

- ❖ **DEGREASING** : Parts must be thoroughly cleaned / degreased by using neutral water based cleaner AQUAKLEM – 1 @ 30 ML/Lt. heavily soiled parts will need more time and elevated temperatures. Parts cleaned ultrasonically with AQUAKLEN – 1 will give the best results within a short time. Please ensure there is no water break. RINSE THOROUGHLY FRESH RUNNING WATER.
  
- ❖ **STRIKE** : Prepare BRASS P A solution by adding 200 ml BRASS P A concentrate & 800 ml of water . Dip the parts in solution for BRASS P A 30 To 60 seconds RINSE THOROUGHLY IN FRESH RUNNING WATER.
  
- ❖ **CHEMICAL POLISH** : Prepare BRASS P 900 solution by adding 150 ml BRASS P 900 concentrate & 200 ml of BRASS PB 5 To 20ml of BRASS P A with 630 ml of water. Dip the parts in BRASS P 900 solution for 2 to 3 minutes in rack, barrel or basket providing rod type movement. Do not exceed 45°C as beyond this temperature the operation becomes uncontrollable rapid bath decomposition begins. As polishing progresses, a reddish brown film forms on the surface. This is normal and is an indication that the polishing bath is performing well. Provision for heating , and cooling the bath may be necessary depending upon ambient conditions. Brightness on leaded brass (4-6%) and other brass alloys is marginally less than 70/30 brass. Brass casting cannot be chemically polished to a brilliant surface due to high contents of tin or lead in the castings. However, a clean attractive satin finish is achievable. RINSE THOROUGHLY IN FRESH RUNNING WATER.
  
- ❖ **STRIKE** : Dip parts back in BRASS P A solution till reddish brown film disappears. RINSE THOROUGHLY IN FRESH RUNNING WATER.
  
- ❖ **POST TREATMENT**: Either transfer polished parts directly to plating or chemical coloring operations as the case may be, or dip parts in anti-tarnish solution made up of 100 ml/ lt BRASS P AT for 45- 60 seconds at room temperature and dry.

**DO NOT RINSE PARTS AFTER BRASS P AT DIP.**

**MAINTENANCE** : Depletion of the BRASS P 900 working bath is indicated by slowness of fizzing reaction, lack of brown film formation and possibility of etching occurring on parts. Add 40 ml /lt of BRASS P 900 concentrate & 80 ml /lt of BRASS P B to replenish the bath. The bath can be in this way replenished several times. The bath tolerates up to 40 gms/ lt of dissolved metals after which it should be discarded. Keep the bath covered when not in use to avoid contamination.

### **HINTS**

- ❖ Proper degreasing the parts in AQUAKLEN – 1 is essential. insufficient cleaning/  
Degreasing, oxide scale removal and activation causes cloudiness of the bright dipped components. Ensure adequate surface preparation prior to bright dipping.

Use proper concentration of BRASS P 900 concentrate with water to Prepare BRASS P 900 solution . Low concentration can cause etching adjust . Adjust bath as suggested MAINTENANCE .

- ❖ The brightening reaction of BRASS P 900 is exothermic, therefore Keep bath temperature below 45°C to avoid solution decomposition.
- ❖ BRASS P 900 solution is acidic and corrosive chemicals. Avoid Contact with eye, skin, and clothing , Wear glasses, goggles or face shield , protective rubber gloves, aprons and boots while preparing solutions and working with the bath. In case of contact, pour water on the affected area and see a physician immediately.
- ❖ Do not mix Brass P 900 concentrates or solutions with alkaline Materials , cyanide or any other substance BRASS P 900 solution is toxic in case of injection

### **NON WARRANTY**

The information in this technical data sheet is based on our skill experience and tests which we believe to be reliable but M/s.A1 PRODUCTS offers no guarantees and cannot accept responsibility for operations not under their direct control.

**FOR INDUSTRIAL USE ONLY**

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