



White -Free™

DECORATIVE WHITE PLATE

Product Description:

White-Free™ deposits a flash plate of white tin over nickel and nickel-free plates. **White-Free™** helps prevent tarnishing when a white finish is desired.

White-Free™ offers a cyanide-free alternative to other hazardous cyanide based white plating solutions.

White-Free™ is supplied as ready to use, for ease of set-up and operation.

Applications:

Over nickel, nickel-free, sterling silver, and most other similar metals.

Cautions: Read all safety information before using this product

1. Use only with proper ventilation.
2. Wear gloves, safety goggles, apron.
3. Avoid contact with eyes and skin.

Operating Conditions:

Temperature	Room temperature 75° F (22°C)
Current Density	2-4 Volts (10-20 ASF)
PH	1.5-2.0
Beaker	Pyrex
Anodes	Stainless Steel
	3-5 micro inches per minute

Bath Set Up:

1. Fill beaker with **White-Free™**.
2. Check connections from rectifier to anode and work to be sure the negative (-) and positive (+) wires are connected properly. The work should be charged negative (-), and the anode positive (+). Turn rectifier on.
3. Plate for 30-60 seconds at 2-4 volts depending on size of part and degree of shine desired.
4. Larger parts require slightly higher voltage, while smaller parts require lower voltage. If part shows any burning such as dark grey or rough deposits around the edges, you are burning the part and must lower the voltage. If part is not white color after 45 seconds of plating, voltage is too low, then increase voltage slightly.
5. After plating rinse part thoroughly in deionized water and dry completely with either a steam cleaner or a hot air dryer.

Trouble Shooting:

Pieces not Plating	\$	Check power supply, make sure switch is on.
	\$	If switch is on, check fuse.
	\$	Check connections from power supply to anode or cathode (part).
Pieces turn dark gray, hazy or black	\$	Anode/ cathode connections are reversed.
	\$	Current is too high, Adjust to lower current.
	\$	Temperature is warm, cool to below 80° F.
	\$	Plate for a shorter time.
	\$	Organics are too high. Solution is used up- discard.
Pieces turn hazy, cloudy, too dull	\$	Current too low. Raise current.
	\$	Plate for a longer time.
	\$	If solution is old, organics are too high. Solution is used up- discard.

Discard and Replace:

White-Free™ is a rugged bath and guidelines have been provided to help assure the long life of this bath. If, however, a problem should arise that cannot be solved by any of the above recommendations, or recommendations by our or any other qualified laboratory, the bath may need to be replaced: Transfer to a DOT approved container. Check with local authorities for proper disposal.