



Product Code	307-162
Colour	White
Preparation	Product Ready to Use
Tanks	Polypropylene or Glass
Anodes	Platinised titanium
Heaters	Porcelain
Agitation	Solution and work movement

USAGE: Heat the ready-to-use solution to 30°C. Dipping the platinum coated titanium (+) anode into it. Put the material you want to plate into the solution with the help of a current-conducting (-) hanger (Platinex hanger is recommended). Perform the plating process by immersing it and applying 2.3 - 2.5V voltage and moving it for 30 -60 seconds

IMPORTANT NOTE: The more accurate the pre-treatment processes before plating, the better the plating quality will be. Please contact our company regarding the pre-treatment preparation.



OPERATING CONDITIONS

Palladium Content:	5.0 g/l \pm 1.0
Nickel Content:	2.5 g/l \pm 0.5
Temperature:	30°C
pH:	8.0 \pm 0.5
Voltage:	2.3 – 2.5V
Cathode Current Density:	1 A/dm ² + 0.5
Deposition Rate:	0.3 A/min ile 1 A/dm ²
Plating Efficiency:	30 mg/A.min
Anode-To-Cathode Ratio:	2 : 1 or higher
Bath Density:	8 - 9 °Bé

**DEPOSITION CHARACTERISTICS**

Alloy:	Pd 80-90%/Ni 10-20%
Hardness:	550 kg/mm ²
Density:	11 g/cm ³
Colour:	Rhodium White

**MAINTENANCE RATE****Consumed 4.000 Amps Per Minute**

- 100 g PALLADIUM Complex (1 litre)
- PALLADIUM PL Replenishers R1 (1 UNIT) 200 ml
- R2 (1 UNIT) 100 ml

SOLUTION MAINTENANCE

The palladium metal content should be maintained at the recommended concentration (4 - 6 g/l) with periodic additions of PALLADIUM Complex. PALLADIUM PL Replenishers are supplied in UNITS of 200 ml for R1 and 100 ml for R2. They contain all necessary agents to be added together with 100 g of Palladium metal. PALLADIUM PL Antiveil additive is used only if a slight haze is noticed on the deposit. The nickel metal content is maintained at the recommended concentration (2 - 3 g/l) by addition of PALLADIUM PL Replenishers. In case of important losses of Ni by drag-out the Complex solution of Nickel may be used. In general any organic or metallic contamination can interfere with the operation of the PALLADIUM PL bath and should therefore be prevented by proper rinsing in water all parts to be plated. A final rinse in deionised water is recommended.

**EQUIPMENT REQUIRED****1. TANKS**

Tanks should be made from PVC, HD polyethylene or polypropylene. Prior to use, the tank should be leached with 1% Ammonium hydroxide solution for several hours and subsequently rinsed in several changes of water.

2. HEATERS

Heaters should be made from Porcelain or PTFE. The temperature of the bath should be maintained at 30-35 °C.



3. FILTRATION

The solution should be filtered continuously. All parts of the filter unit in contact with the solution should be made from plastic. When cartridge filters are used, they should be leached in 1 % Ammonium hydroxide prior to being used. Filter capacity is to be such that the solution volume is filtered at least twice per hour. Filter cartridges should be made from polypropylene. Particle retention should be 1 μ .

4. AGITATION

Moderate agitation is necessary to ensure even deposition and to allow optimum operating conditions. Work movement should be 2 m/mn.

5. ANODES

Platinised titanium anodes should be used with this bath. The area should be sufficient to provide an anode-to-cathode ratio of 2 : 1 or better.



TROUBLE SHOOTING

CONSTITUENT	LOW	HIGH
Palladium	Burning	Hazy Deposit
Nickel	Hazy deposit. Deposit rich in Pd	Dark Deposit
pH	Dark deposit. Increase with NH ₄ OH solution	Loss of brightness. Decrease with acid salt corrector
Antiveil	Hazy Deposit	Dark deposit. Precipitation in the solution
Temperature	Loss of brightness, burning	Hazy Deposit
Agitation	---	Hazy Deposit
Current Density	Hazy Deposit	Burning