



<b>Product Code</b>	307-164
<b>Colour</b>	White
<b>Preparation</b>	Product Ready to Use
<b>Tanks</b>	Polypropylene or Teflon
<b>Anodes</b>	Platinised Titanium
<b>Heaters</b>	Porcelain or PTFE
<b>Agitation</b>	Solution and/or work movement is recommended

**USAGE:** Heat the ready-to-use solution to 45-50°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 2-2.2V voltage and moving it for 60 - 120 seconds. Platinum plating can be used as an alternative to rhodium plating . Provides 0.2 – 0.3 micron coating with 5 minutes of application.

**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

<b>Platin Content:</b>	2.5 g/l $\pm$ 0.5
<b>Sulfuric Acid:</b>	75 g/l (70-85 g/l)
<b>pH:</b>	1.0
<b>Temperature:</b>	45 - 50 °C (recommended 45°C)
<b>Cathodic Current Density:</b>	1.0 - 2.0 A/dm <sup>2</sup>
<b>Voltage:</b>	2 – 2.2V
<b>Anode-To-Cathode Ratio:</b>	2 : 1 or higher
<b>Plating Efficiency:</b>	10 mg/A.mn
<b>Deposition Rate:</b>	~ 0.2- 0.3 $\mu$ 5-6 dakikada ve 1 A/dm <sup>2</sup>
<b>Plating Time:</b>	60-120 second



## **DEPOSITION CHARACTERISTICS**

<b>Purity:</b>	99.9 %
<b>Hardness:</b>	350 - 400 HV
<b>Density:</b>	21 g/cm <sup>3</sup>



## **MAINTENANCE RATE**

### **Consumed 5.000 Amps Per Minute**

- 50g Platinum 3000 Replenisher (20g/L Pt)

## **SOLUTION MAINTENANCE**

The Platinum metal content should be maintained at the recommended concentration (2.5 – 3.0 g/l) with periodic additions of PLATINUM 3000 Replenisher (containing 20 g/l Pt).

The temperature should be maintained at the recommended level of 45 - 50 °C. An increase in temperature will produce a mat deposit. A decrease in temperature will give a low plating efficiency.



## **EQUIPMENT REQUIRED**

### **1. TANKS**

Tanks should be made from Polypropylene or Teflon. Prior to use, the tank should be leached with a 5 % solution of sulfuric acid 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 45-50°C.

### **3. FILTRATION**

The solution should be filtered continuously. All parts of the filter should be temperature and acid resistant. When new cartridge filters are used, they should be leached in 1 % sulfuric acid prior to use. Solution volume should be filtered at least twice per hour and particle retention should be 5 µ. Avoid the use of cotton filters.



#### **4. AGITATION**

A moderate agitation is recommended. Work movement should be adjustable (2-6 m/min.)

#### **5. ANODES**

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



### **TROUBLE SHOOTING**

<b>CONSTITUENT</b>	<b>LOW</b>	<b>HIGH</b>
<b>Platinum</b>	Low Plating Efficiency	Hazy Deposit
<b>pH</b>	Low Plating Efficiency	Mat Deposits and Precipitation of The Solution
<b>Temperature</b>	Low Plating Efficiency	Hazy Deposit
<b>Current Density</b>	Low Plating Efficiency and Dark Deposits	---
<b>Sulfuric Acid</b>	Hazy Deposit	Low Plating Efficiency but Bright Deposits