



EQUAURA

IMMERSION GOLD

INTRODUCTION

The Equaura Immersion Gold plating process has been formulated to produce an immersion deposit of gold onto many metals. The simplicity and economy of operation results in the process finding wide acceptance for both technical and decorative applications where it is used on printed circuits, general electronic components, as well as metal fittings, metallised plastics and jewellery.

BENEFITS

- Deposits on a wide range of metals
- Ease of use

SOLUTION MAKE-UP

Equaura Immersion Gilding Salts	1 pack
DI Water	4.5 lts

It is essential that the tanks to be used for Equaura are thoroughly cleaned and leached before any chemistry is introduced. If in any doubt as to the cleaning procedure please contact PMD Chemicals Technical Department.

1. Fill the tank with the required volume of DI water.
2. Heat to 40-50°C.
3. Add the Equaura Immersion Gilding Salts and stir until all salts are dissolved.
4. Add Slowing Down Salts if required (see notes).
5. Heat to boiling point and continue boiling for 5 minutes.
6. Allow to cool to operating temperature.



OPERATING DATA

Gold	3.1g/L
Temperature	85 - 95°C
pH	6.2 – 8.0
Immersion time	0.5 – 10 minutes depending on base metal and thickness requirement
Deposition rate	0.1µm in 5 mins on copper 0.1µm in 3 mins on nickel
Suitable metals	Copper, copper alloys, brass, nickel, nickel alloys,
Agitation	Work movement
Extraction	Required

EQUIPMENT

Tanks	Stainless steel or polypropylene lined mild steel.
Heaters	Stainless steel or PTFE immersion heaters

PROCESS SEQUENCE

The Equaura process requires parts to be chemically clean prior to plating. Where available pre-treatment should be identical to that used for electro-plating gold; ie. alkaline cleaning followed by a dilute acid dip. Where a nickel surface is to be plated, a 10% hydrochloric acid dip following cleaning will serve to overcome any problems resulting from passivity.

MAINTENANCE AND CONTROL

On make-up, the gold content of the solution is 3.1g/L. Almost all this gold may be plated from the solution, provided operating instructions are adhered to.

The drag-out should be used to keep the bath level topped-up, thus ensuring that the solution does not become over concentrated and that a minimum of gold is wasted.

When the solution is not in use the tank should be kept covered.



NOTES

Slowing Down Salts

These salts are recommended in cases where Equaura is to be applied to electrodeposited nickel. The salts slow down the rate of reaction, thus ensuring good adhesion of the deposit as well as making the deposition process more controllable. The entire pack of Slowing Down Salts, equivalent to 4.4 g/L, should only be added after the Equaura salts have dissolved in hot water, and not before.

DISPOSAL

Dispose of in accordance with local authority requirements

PRODUCT FAMILIES

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
Equaura Immersion Gilding Salts	079002
Equaura Slowing Down Salts	063009

Whilst every endeavour has been made to ensure that the information given in this data sheet is correct, PMD Chemicals Limited gives no warranty, express or implied, relating to the use or performance of this product.