



PROCIRC 963PD

Pre-dip

INTRODUCTION

Procirc 963PD Pre-dip has been formulated as an integral part of the Cirgold SMD system for electroless nickel and immersion gold plating of printed circuit boards for surface mount devices. Procirc 963PD is used prior to the palladium activator to condition copper surfaces before the activator. The use of 963PD Pre-dip ensures complete and uniform palladium coverage.

BENEFITS

- Concentrated solution - economic to use.
- Complete catalysation of copper surfaces.

SOLUTION MAKE -UP

Procirc 963PD Pre-dip	150 ml/L
Deionised water	850 ml/L

OPERATING DATA

Concentration	100 – 150ml/L
Temperature	20 - 35°C
Time	15 – 60 Sec
Agitation	Gentle work movement

EQUIPMENT

Tanks	Polypropylene or PVC.
Heaters	PTFE with thermostatic control.

INSTALLATION

It is essential that the tanks to be used for Procirc 963PD Pre-dip are thoroughly cleaned and leached before any chemistry is introduced.

Contact PMD Technical Department for appropriate procedure.

1. Fill the clean empty tank with the appropriate volume of water.
2. Add the appropriate volume of Procirc 963PD and mix thoroughly.
3. Heat to operating temperature.



PROCESS SEQUENCE

1. Procirc 9027 Acid Cleaner.
2. Rinse.
3. Rinse.
4. Procirc 921 Microetch.
5. Rinse.
6. Rinse.
7. Procirc 963PD Pre-dip.
8. Procirc 963 Activator.
9. Rinse.
10. Rinse.
11. Procirc 964 Electroless Nickel.
12. Rinse.
13. Rinse.
14. Cirgold 965 Immersion Gold.
15. Drag out.
16. Rinse.
17. Dry.

MAINTENANCE AND CONTROL

The solution does not have an indefinite life as copper contamination will increase with age. Whether these reach harmful levels will depend on the mode of operation and the degree of drag out. As a rough guide the solution should be replaced when each litre has processed 3 sq.m. of copper surface area.

ANALYSIS METHOD

Reagents

0.1N sodium hydroxide (standard volumetric solution).
Phenolphthalein indicator.

Method

1. Pipette 10 ml of working solution into a 250 ml conical flask.
2. Add approximately 100 ml DI water and 2 - 3 drops of phenolphthalein indicator.
3. Titrate with 0.1N sodium hydroxide to a pink end point.
4. Record titre = t ml.

Calculation

$$t \times 7.6 = \text{ml/L Procirc 963PD}$$

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
Procirc 963PD Pre-dip	967009
Procirc 963 Activator	967001
Procirc 9027 Acid Cleaner	905003
Procirc 921 Microetch	923001
Procirc 964 Electroless Nickel MU	967002
Cirgold 965 Immersion Gold	965001

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