

# PROCIRC 980

## IMMERSION TIN

### INTRODUCTION

Procirc 980 Immersion Tin will deposit a thin, virtually pore-free layer of pure tin onto copper printed circuit boards. It acts as an effective metallic corrosion protector on bare copper boards to maintain solderability for extended periods.

### BENEFITS

Solderability is retained for long periods

Virtually pore-free coating

Uniform colour and appearance - prevents darkening of bare copper boards

Promotes reflow by sealing etched copper edges

Ready-to-use solution - simple to operate

### SOLUTION MAKE-UP

Procirc 980 Immersion Tin

Supplied ready to use.

### OPERATING DATA

Tin Concentration 8 - 10g/L

Temperature 20 - 50 deg C. Optimum 30°C.

## **OPERATING DATA (CONT)**

Time	2 - 3 minutes.
Deposit Thickness	0.75 microns are deposited at 20°C 0.8 to 1.0 micron can be obtained at 50°C
Agitation	Gentle mechanical movement recommended.
Extraction	Recommended.

## **EQUIPMENT**

Tanks	Polypropylene, polythene or PVC
Heaters	PTFE or with thermostatic control.
Filtration	Glandless all plastics construction capable of 2 - 3 turn overs/hour through a 10µm polypropylene cartridge.

## **INSTALLATION**

It is essential that the tanks to be used for Procirc 980 are thoroughly cleaned and leached before any product is introduced.

If in any doubt as to the cleaning procedure please contact PMD (UK) Limited Technical Department.

1. Fill cleaned tank with Procirc 980
2. Heat to operating temperature

## **PROCESS SEQUENCE**

1. Acid clean. Procirc 905 10% 40°C 2 mins
2. Rinse
3. Rinse
4. Microetch Procirc 921 100g/L 30°C 1 min
5. Rinse
6. Rinse
7. Procirc 980 30°C 2 mins
8. Rinse
9. DI water rinse
10. Dry

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## **MAINTENANCE AND CONTROL**

The solution should be analysed regularly and replenished as necessary. (See analysis methods).

The tin metal content of the solution is maintained by periodic additions Procirc 9801 Tin Replenisher. Approximately 500ml/L of Procirc 9801 Tin Replenisher in total can be added before the solution should be discarded due to copper build up.

## **ANALYSIS METHODS**

### Reagents

0.05M potassium iodate  
Marble chips  
Concentrated hydrochloric acid  
Iodine indicator

### Method

1. Pipette 5.0ml of the working solution into a 250ml conical flask.
2. Add 5ml of concentrated hydrochloric acid.
3. Add one marble chip.
4. Titrate with 0.05M potassium iodate to a blue end point with iodine indicator.
5. Record titre = t mls.

### Calculation

$t \times 10 = \% \text{ concentration Procirc 980}$

### Replenishment

For every 1% low add 2ml/L Procirc 9801

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## **DISPOSAL**

Dispose of in accordance with local authority requirements.

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## **PRODUCT FAMILIES**

The following products are referred to in this data sheet.

Product Name

Product Number

Procirc 980 Immersion Tin  
Procirc 9801 Tin Replenisher

987001  
987002

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