



PROCIRC 9028

CLEANER/CONDITIONER

INTRODUCTION

Procirc 9028 Cleaner/Conditioner has been specifically developed for the removal of light soils and resist residues from the copper surface prior to treatment with Procirc 9550 Cirbond.

BENEFITS

- No separate cleaner required.
- Uniform copper conditioned finish.
- Allows consistent treatment of copper with Procirc 9550 Cirbond.
- Low process cost.

SOLUTION MAKE-UP

Procirc 9028 Conditioner 10% v/v with deionised water.

OPERATING DATA

Concentration	10% v/v nominal
Temperature	25-50°C
Time Typical values	Spray 30 - 90 secs
Dip	1 - 3 mins
Agitation	Preferred but not essential
Extraction	Recommended

EQUIPMENT

Tanks	Stainless steel, titanium, polypropylene, polyethylene or unplasticised PVC.
Heaters	Teflon coated, titanium, PTFE, stainless steel all with thermostatic control.

INSTALLATION

It is essential that the tanks to be used for Procirc 9028 Cleaner/Conditioner are thoroughly cleaned and leached before any product is introduced.

If in any doubt as to the cleaning procedure, please contact PMD Technical Department.

1. Fill the clean empty tank with the appropriate volume of deionised water.
2. Add the required amount of Procirc 9028 Cleaner/Conditioner and mix thoroughly.
3. Heat to operating temperature.



PROCESS SEQUENCE

1. Acid or alkaline Clean.*
2. Rinse.*
3. Rinse.*
4. Procirc 9028 Cleaner/Conditioner.
5. Rinse.
6. Rinse.
7. Procirc 9550 Cirbond.
8. Rinse.
9. Rinse.
10. Dry.

* Steps 1-3 may be omitted dependent on board condition.

MAINTENANCE AND CONTROL

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

Evaporation losses should be replaced with deionised water.

Concentration losses should be replaced with Procirc 9028 Cleaner/Conditioner.

ANALYSIS METHOD

Reagents

0.1 N hydrochloric acid (standard volumetric solution).
Methyl red indicator.

Method

1. Pipette 2 ml working solution into a 250 ml conical flask.
2. Add approximately 50 ml water and mix thoroughly.
3. Add 2 - 3 drops of methyl red indicator and mix thoroughly.
4. Titrate with 0.1 N hydrochloric acid to red end point.
5. Record titre = t ml.

Calculation

$t \times 0.794 = \% \text{ concentration Procirc 9028 Cleaner/Conditioner.}$

Replenishment

For every 1% drop in concentration add 10ml/L Procirc 9028 Cleaner/Conditioner.

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 9028 Cleaner/Conditioner	905005
Procirc 9550 Cirbond Part A	957003
Procirc 9550 Cirbond Part B	957004

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