



Carbon Colloid Conditioner

Carbon Colloid Process

Code No.: REM 3316

DESCRIPTION: **Carbon Colloid Conditioner** is a single component, slightly alkaline solution designed to condition dielectric surfaces of printed wiring boards. It is used in preparation for through-hole plating with the **Carbon Colloid Process**.

**PHYSICAL
&CHEMICAL
PROPERTIES:**

Appearance	Clear, Light Yellow Liquid
Odor:	Mild Amine
Freezing Temperature:	0°C
Min. Storage Temperature:	5°C

EQUIPMENT:

Modules:	Horizontal Conveyorized Equipment Polypropylene, 316 SS Construction
Ventilation:	Required
Heaters:	316 SS, PTFE (Teflon)
Filtration:	Not required

Please contact your REM Representative for an approved horizontal conveyorized equipment vendor.

**MAKE-UP
PROCEDURE:**

DI Water	97.5% by volume
Carbon Colloid Conditioner	2.5% by volume



**OPERATING
CONDITIONS:**

Temperature	21-27°C
Normality	0.17-0.22 N
pH	>10.0
Contact Time	30-60 sec.

**BATH
MAINTENANCE &
REPLENISHMENT:**

I. Solution Normality

A. Reagents

1. Hydrochloric acid, 0.100N
2. Methyl orange indicator solution 0.1% in Deionized water.

B. Procedure

1. Pipette 10.0 mL of working solution into a 250 mL flask and add approximately 100 mL Deionized water.
2. Add 5 drops of methyl orange indicator solution and titrate with 0.1N HCl to the methyl orange (red) endpoint.

C. Calculation

$$\frac{(\text{mL of HCl}) \times (\text{N of HCl})}{\text{sample size}} = \text{Normality of working solution}$$

D. Replenishment

$$(0.20 - \text{Normality}) \times 458 \times (\text{sump volume in gallons}) = \text{mL of Carbon Colloid Conditioner.}$$

II. Solution pH

A. Procedure

1. Calibrate a pH meter using pH 7.0 and 10.0 buffer solutions at ambient temperature.
2. Measure pH of Carbon Colloid Conditioner. (If ATC probe is not used, cool bath sample to ambient temperature prior to measuring pH).

**SOLUTION
LIFE:**

REM recommends that the Carbon Colloid Conditioner bath be replaced after 275 surface square feet/gallon [660 dm²/L] of work has been processed.



**SAFETY &
WARNING:**

REM recommends that the operator read and review the REM Material Safety Data Sheets for the appropriate health and safety warnings before use.

Material Safety Data Sheets are available from REM company.

**WASTE
TREATMENT:**

Prior to using any recommendations for waste treatment, the user is required to know the appropriate local/state regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state regulations take precedent.

Spent Carbon Colloid Conditioner is mildly alkaline. Carbon Colloid Conditioner does not require special waste treatment procedures and can be treated in the same manner as other PCB alkaline cleaners.

**ORDER
INFORMATION:**

<u>Product Name</u>	<u>Product Code</u>	<u>Container</u>
Carbon Colloid Conditioner	REM 3316	5 gal. (20 liters)

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