

MultiPrep

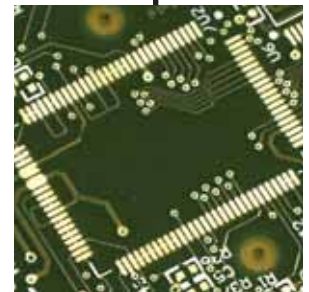
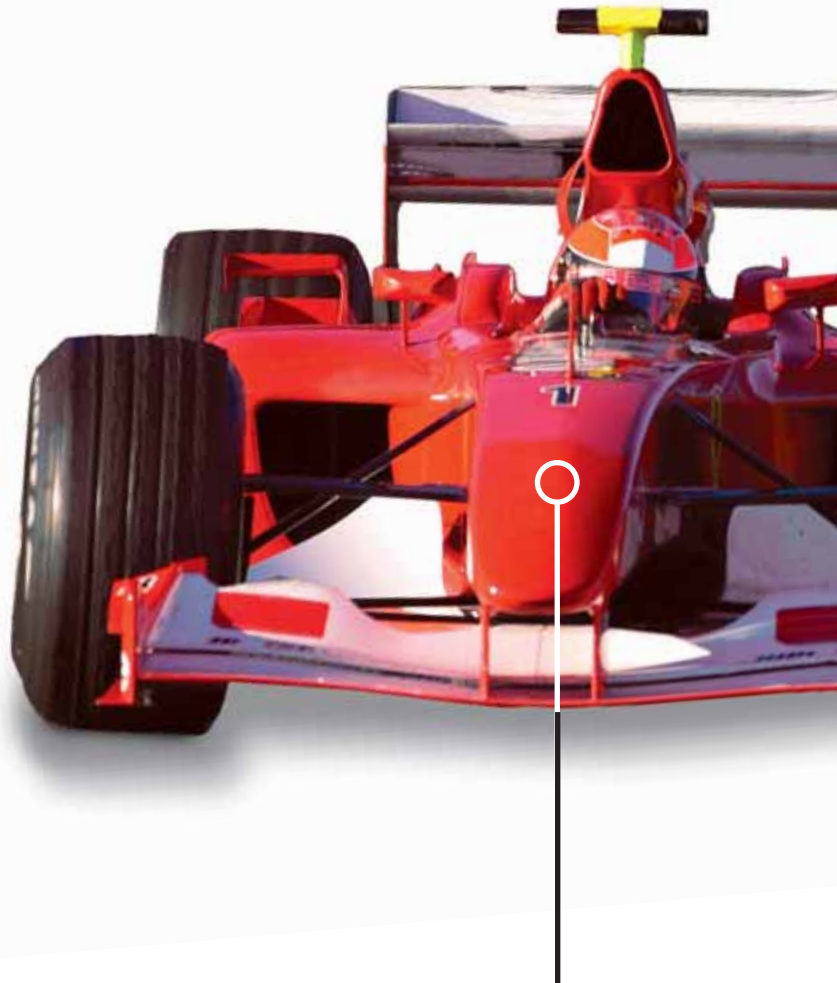
Surface Preparation

The Copper Adhesion Process for Soldermask, Dry Film and Liquid Photoresist That “Sticks and Grips”

MacDermid MultiPrep is a revolutionary pretreatment process for the adhesion of solder mask, dry film and liquid photoresists to copper surfaces. Based on decades of etching experience, MultiPrep is engineered specifically for copper PCB circuitry. It completely eliminates pumice and brush scrubbing for improved efficiencies throughout the process.

MultiPrep is the only new generation surface preparation technology free of organic acid – a major environmental benefit for the PCB shop through the reduction of waste treatment volumes. It delivers an optimized copper surface topography, maintains high-speed signal integrity and provides uniformity of etched pulse-plated panels. A universal process that is ideal for ENIG and immersion tin finishes, it enables copper surfaces to “stick and grip” with exceptional reliability and durability. Use MultiPrep in any PCB operation requiring unparalleled copper adhesion to organic films.

When it comes to ground-breaking innovations in copper surface pretreatment, count on the company that says “Yes We Can.” MacDermid.



Key Features

- Environmentally-friendly, organic acid-free chemistry
- Replaces pumice or brush scrubbing
- Creates a high adhesion micro-etched topography
- Delivers exceptional uniformity and cosmetics
- Low capital expenditure for installation and maintenance
- Easily controllable; with a long bath life

YES WE CANSM

 **MacDermid**
Electronics Solutions

MultiPrep

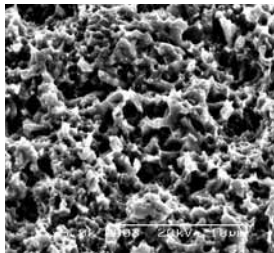
Surface Preparation

The Only Environmentally - Friendly Process That Delivers Superior Soldermask and Photoresist Adhesion

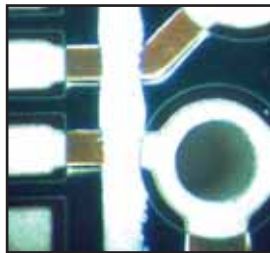
MultiPrep results from decades of MacDermid's experience with etching copper prior to application of our many other processes. And when you use MultiPrep, you can be assured that our products will adhere reliably and durably, and come "process approved."

Delivering a rough, micro-etched surface that is ideal for microvias and ultra-fine lines/spacing on complex circuit boards, MultiPrep is compatible with all surface finishes, and provides ultimate uniformity and clean, continuous cosmetics. Backed by our renowned customer and technical service, and trusted by OEMs worldwide, MacDermid is the one company you can count on to say "Yes We Can."

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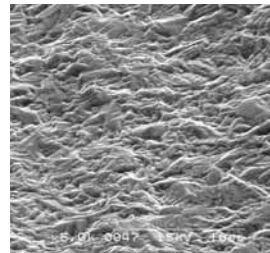


SEM at 5K x,
Zygo results: Ra=0.58 μm ,
Rz=5.2 μm

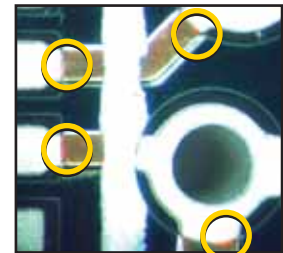


MultiPrep provides uniform rough topography for bonding solder mask and photoresist compared to other surface preparation, (soldermask shows perfect tape-test adhesion even after immersion tin plating)

Traditional Micro-etch



SEM at 5 K x,
Zygo results: Ra=0.03 μm ,
Rz=0.36 μm



Traditional surface preparation systems, such as Hydrogen Peroxide/Sulfuric acid shows mask lifting in tape test after plating immersion tin.

Various MultiPrep Applications

Preclean for dryfilm and liquid photoresist



Microetch for solder mask



Roughen microvias for resin plugging



YES WE CANSM

It takes more than innovative, high performance products and superior technical service to help our customers compete and win in today's global marketplace. It takes a total commitment to understanding their needs and the ability to provide the right solutions—every time.

When success is your only goal, trust the company that says "Yes We Can."

 **MacDermid**
Electronics Solutions

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