

# DuPont CB102

conductive via plug paste for printed circuit boards

## Processing Guide

### Product Description

CB102 conductive via plug paste is a unique technology of thermoset material designed for plugging of through-holes and vias of plastic ball grid array (PBGA), buried via and sequential build-up boards (SBU); used by the Printed Circuit Board (PCB) industry.

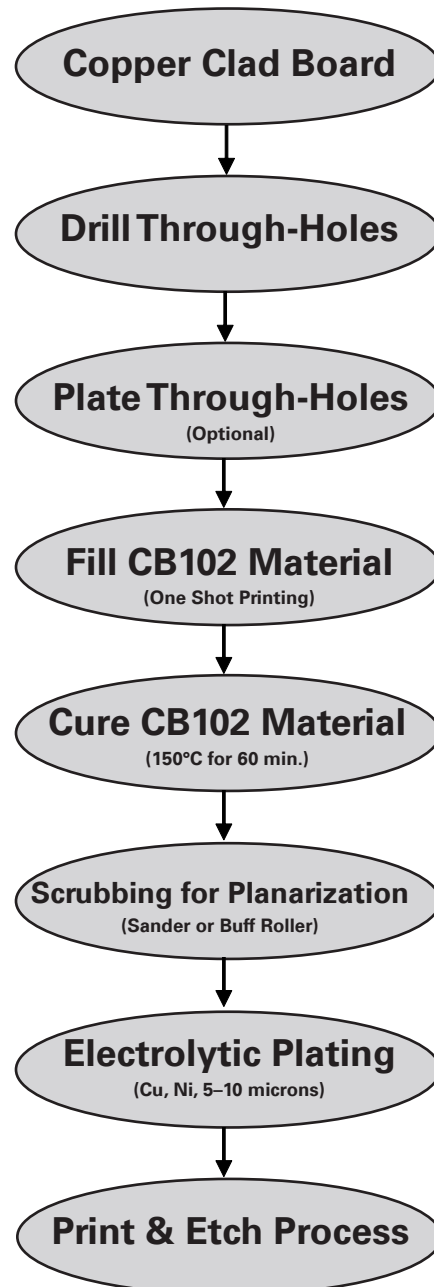
### Product Benefits

- No solvent eliminates drying step
- Printable with screen or stencil
- Fills small vias ( $\leq 0.006''$ )
- Easy to planarize
- Excellent electrolytic Cu platability (Ni/Au possible)
- Pad on via, or solder ball land on through-hole, possible
- Close CTE to board material (FR-4, BT resin)
- Good thermal cycle performance
- Good thermal conductivity (thermal vias)

### Technical Data

See Technical Data Sheet for Environmental and Physical Properties.

### Process Recommendations



*The miracles of science™*

## Recommended Printing Process

- **Recommended Mesh Screen**

Mesh count: 160–200 mesh  
Material of mesh: Stainless or Polyester

- **Recommended Stencil**

3–4 mils stainless steel polished

- **Recommended Squeegee**

(see Figure 1 and Figure 2)

Type of squeegee: Cut squeegee  
Material: Urethane  
Hardness: 70 durometer  
Thickness: 20 mm  
Cut angle: 20–30 degree  
Attack angle: 80–85 degree

- **Recommended Printing Conditions**

(see Figure 3)

Printing speed: 2–10 in/sec.  
Pressure: Adjust appropriately  
Snap off (for screens): Adjust appropriately

- **Recommended Curing Conditions**

Temperature: 150° C  
Time: 60 minutes

Figure 1

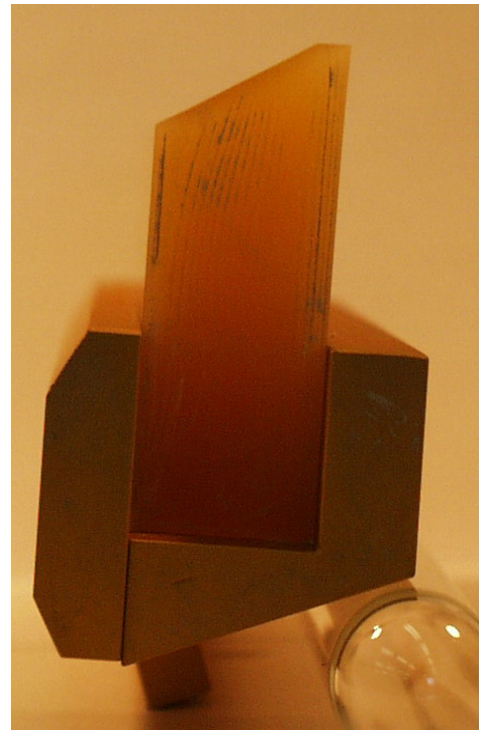
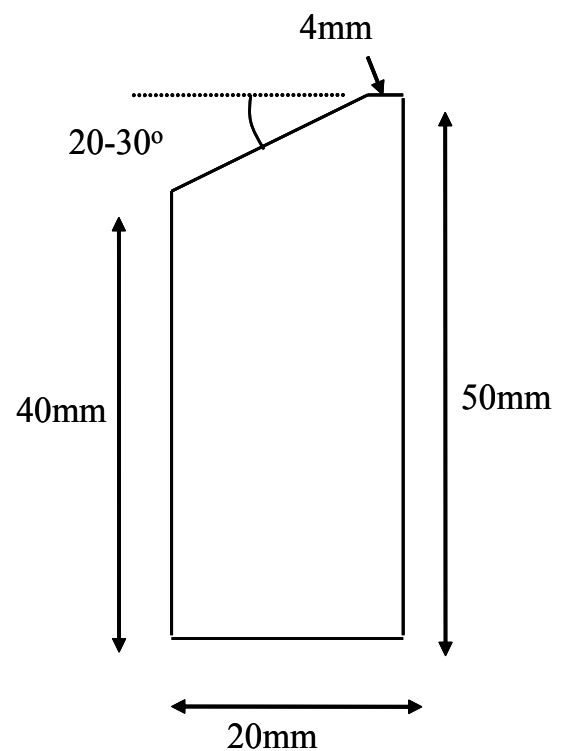


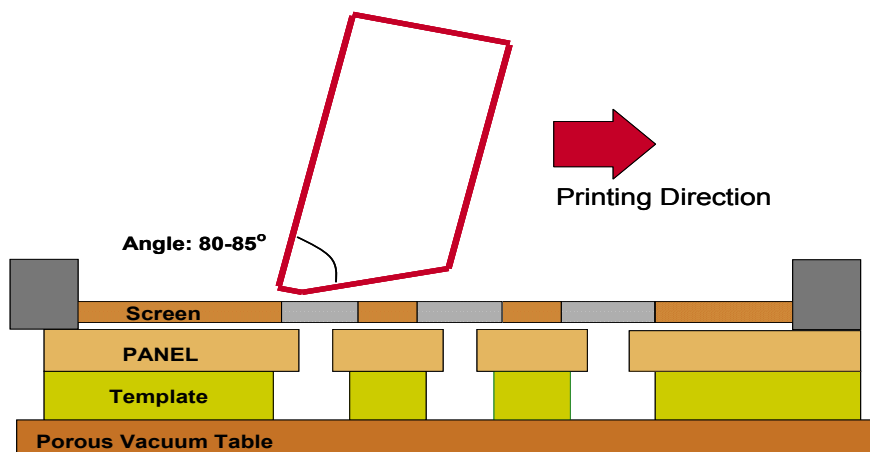
Figure 2



## Recommended Printing Process

This document reflects standard processes, including those commonly used for typical screen printing of electronic inks. Processes may vary by application. Please contact us for specific processing recommendations.

Figure 3



The opening in the screen should be larger in diameter than the hole to be filled.

For more information on DuPont CB102 conductive via plug paste or other DuPont Microcircuit Materials products, please contact your local representative:

### Americas

DuPont Microcircuit Materials  
14 T.W. Alexander Drive  
Research Triangle Park, NC 27709  
Tel: 800.284.3382

### Asia

DuPont Kabushiki Kaisha  
Sanno Park Tower, 11-1  
Nagata-cho 2-chome  
Chiyoda-ku, Tokyo 100-611  
Japan  
Tel: 81-3-5521-8650

DuPont China Holding Co. Ltd  
Bldg 11, 399 Keyuan Rd.  
Zhangji Hi-Tech Park  
Pudong New District  
Shanghai 201203, China  
Tel: 86-21-6386-6366 ext. 2202

E.I. DuPont India Private Limited  
7th Floor, Tower C, DLF Cyber Greens  
Sector-25A, DLF City, Phase-III  
Gurgaon 122 002 Haryana, India  
Tel: 91-124-4091818

### Europe

DuPont (UK) Limited  
Coldharbour Lane  
Bristol BS16 1QD  
United Kingdom  
Tel: 44.117.931.3191

DuPont Taiwan, Ltd.  
45 Hsing-Pont Road  
Taoyuan, Taiwan 330  
Tel: 886-3-377-3616

DuPont Korea Inc.  
3~5th Floor, Asia tower #726  
Yeoksam-dong, Gangnam-gu  
Seoul 135-719, Korea  
Tel: 82-10-6385-5399

DuPont Company (Singapore) Pte Ltd  
1 Harbour Front Place, #11-01  
Harbour Frong Tower One,  
Singapore 098633  
Tel: 65-6586-3022

<http://mcm.dupont.com>

Copyright ©2010 DuPont or its affiliates. All rights reserved. The DuPont Oval, DuPont™, The miracles of science™ and all products or words denoted with ® or ™ are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates ("DuPont"). NO PART OF THIS MATERIAL MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM OR BY ANY MEANS ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF DUPONT.

Caution: Do not use in medical applications involving implantation in the human body or contact with internal body fluids or tissue unless the product is provided by DuPont under a formal written contract consistent with the DuPont Policy Regarding Medical Applications of DuPont Materials H-50103-2 ("Medical Applications Policy") and which expressly acknowledges the contemplated use. For additional information, please request a copy of DuPont Medical Caution Statement H-50102-2 and the DuPont Medical Applications Policy. The information provided herein is offered for the product user's consideration and examination. While the information is based on data believed to be reliable, DuPont makes no warranties, expressed or implied as to the data's accuracy or reliability and assumes no liability arising out of its use. The data shown are the result of DuPont laboratory experiments and are intended to illustrate potential product performance within a given experimental design under specific, controlled laboratory conditions. While the data provided herein falls within anticipated normal range of product properties based on such experiments, it should not be used to establish specification limits or used alone as the basis of design. It is the product user's responsibility to satisfy itself that the product is suitable for the user's intended use. Because DuPont neither controls nor can anticipate the many different end-uses and end-use and processing conditions under which this information and/or the product described herein may be used, DuPont does not guarantee the usefulness of the information or the suitability of its products in any given application. Users should conduct their own tests to determine the appropriateness of the products for their particular purpose.

The product user must decide what measures are necessary to safely use the product, either alone or in combination with other products, also taking into consideration the conditions of its facilities, processes, operations, and its environmental, health and safety compliance obligations under any applicable laws.

This information may be subject to revision as new knowledge and experience become available. This publication is not to be taken as a license to operate under, or recommendation to infringe any patent. This information may be subject to revision as new knowledge and experience become available.



The miracles of science™