DuPont QM35

Technical Data Sheet

Product Description

DuPont QM35 is silver/platinum via fill for use with DuPont QM44, DuPont QM42 and Diffusion Patterning Multilayer Systems. It is recommended as a top layer via fill for gold to silver bearing interconnections. Not recommended for stacked vias (see DuPont QM34 data sheet).

Product Benefits

- Reliable connection between gold and silver bearing conductors
- One Step via fill
- Cofirable with dielectric layers and conductors.

Processing

Substrates

Properties are based on tests on 96% alumina substrates. Substrates of other compositions and from various manufacturers may result in variations in performance properties.

Printing

Screen-print with a 325-mesh, stainless steel screen with a 12.5 μ m emulsion thickness.

Drying

Allow prints to level for 5-10 minutes at room temperature. Then dry for 10-15 minutes at 150°C.

Firing

Fire in a well ventilated moving conveyor furnace, in air with a 30-minute cycle, to peak temperature of 850°C.

Typical Physical Properties

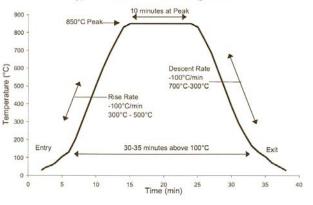
Test	Properties
Resistivity (mΩ/sq @ 25 μm)	0.8 - 2.5
Planarity (µm)	5 - 10
Via Diameter (µm)	125 - 500

Composition Properties

Viscosity (Pa.s) (HBT UC&SP, 50 rpm, 25°C)	60-100
Thinner	DuPont 7502
Coverage (300 µm diameter vias)	61,000

This table shows anticipated typical physical properties for DuPont QM35 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Typical 850°C 30 Minute Firing Profile



Storage and Shelf Life

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature (<25°C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Safety and Handling

For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).

Copyright © 2009 DuPont. All rights reserved. The DuPont Oval, DuPont[™], The miracles of science[™], Green Tape[™] 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 the product is appropriateness of the products in any given application.

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.

The miracles of science™

For more information on DuPont QM35 or other DuPont Microcircuit Materials products, please contact your local representative:

<u>Americas</u>

DuPont Microcircuit Materials

14 T.W. Alexander Drive

Research Triangle Park, NC 27709 Tel.: 800-284-3382

Europe

Du Pont (U.K.) Limited

Coldharbour Lane

Bristol BS16 1QD

U.K.

Tel.: 44-117-931-3191

Asia

DuPont Kabushiki Kaisha

DuPont Electronic Center

KSP R&D B213, 2-1, Sakado 3-chome, Takatsu-ku, Kawasaki-shi, Kanagawa, 213-0012, Japan

Tel: +81-44-820-7575

DuPont Taiwan Ltd

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

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

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

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

Du Pont Company (Singapore) Pte Ltd 1 HarbourFront Place, #11-01 HarbourFrong Tower One, Singapore 098633 Tel.: 65-6586-3022

http://mcm.dupont.com