

Micromax™ 5056

Electronic Inks and Pastes

Bendable, White Reflector Paste

Micromax™ polymeric composition 5056 is solvent-based, screen-printable ink used applications which require a flexible, reflective solder mask after curing. It offers the advantages of rapid-curing while maintaining adhesion to both copper clad substrates and conductors. Solder mask processing conditions will vary depending on equipment used. A general recommendation would be to cure as directed below at 130-150°C.

Micromax™ 5056 is ideally suited for LED applications on flexible Coolam® as well as other substrates. A thickness of 25µm is recommended.

Product benefits

- Will not crack after curing on flexible Coolam®
- Maintains white color during and after processing for better reflectivity

Product information

Colour	White
Solvent or thinner	Micromax™ 8260
Density	1.35 g/cm ³
Solid content	48 - 53 ^[1] %
Maximum Service Temperature	120 ^[2] °C

[1]: 150 °C

[2]: dependent on conductor

Rheological properties

Viscosity	45 - 85 ^[3] Pa.s
-----------	-----------------------------

[3]: Brookfield RVT, 10 rpm, #14 spindle, 25 °C

Application technique

Mask mesh	200 - 325
Drying time	5 - 10 min
Drying temperature	130 - 150 °C
Recommended film thickness, dried	12.7 - 25.4 µm

Typical mechanical properties

Adhesion, cross hatch	5B ^[4] class
-----------------------	-------------------------

[4]: Dielectric to Polyester Scotch Tape #600, ASTM D2259-78.

Micromax™ 5056

Electronic Inks and Pastes

Storage and stability

Shelf life

6^[5] months

[5]: in unopened containers, from date of shipment, at temperature <25°C

Additional information

How to use

Processing

- **Substrates**
 - Polyester, polyimide, epoxy glass
- **Screen types**
 - Stainless steel, polyester
- **Printing**
 - Semiautomatic and manual
- **Typical thickness (after cure)**
 - Printed with 200 - 325-mesh stainless steel screen
 - 0.5 - 1.0 mil
- **Work life**
 - > 2 hours
- **Clean-up solvent**
 - Methyl propyl acetate
- **Drying**
 - 130°C - 150°C / 5 - 10 minute
 - Dry and cure in a well ventilated oven or conveyor dryer where the exhaust meets environmental regulations.

Properties

Typical Physical Properties on Flexible CoolLam®

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	≥ 1
Flexibility (45° bend)	No cracking

Information in this datasheet shows anticipated typical physical properties for Micromax™ 5056 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

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

Micromax™ 5056

Electronic Inks and Pastes

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 Safety Data Sheet (SDS).

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

© 2023 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.