

## Micromax<sup>TM</sup> 7137

## **Electronic Inks and Pastes**

### Resistor Encapsulant For Resistor Networks

Micromax<sup>TM</sup> 7137 has been developed as a screen printable low temperature firable glass encapsulant for resistor networks applications.

#### Product characteristics

- · Protection against environmental conditions, reactive chemicals and potting compounds
- Low firing temperature 500 ° C/30 min. profile
- Smooth surface
- Green color
- Cadmium free

## Rheological properties

Viscosity	90 - 130 <sup>[1]</sup>	Pa.s
[1]: Brookfield HAT, UC&S, 10 rpm, 25°C ± 1°C		

#### Application technique

Mask mesh	325
Drying time	10 - 15 min
Drying temperature	150 °C
Recommended film thickness, dried	18 - 20 μm
Recommended film thickness, fired	≥10 µm
Leveling time	5 - 10 min

## Storage and stability

Shelf life 6<sup>[2]</sup> months

[2]: in unopened containers, from date of shipment, at temperature 5-30 °C

#### Additional information

How to use Processing

- Printing
  - $\circ~$  Print to a dried print thickness of 18-20µm with a 325 mesh stainless steel screen to give a minimum fired thickness of 10µm.
- Thinning
  - Micromax<sup>™</sup> 7137 is optimized for screen printing. Thinning is not normally required. For minor adjustments, Micromax<sup>™</sup> 8250 is recommended.
- Clean-up solvent
  - While traditional screen cleaners work with Micromax™ 7137,

Printed: 2023-09-21 Page: 1 of 3

Revised: 2023-06-26 Source: Celanese Materials Database



# Micromax<sup>TM</sup> 7137

#### **Electronic Inks and Pastes**

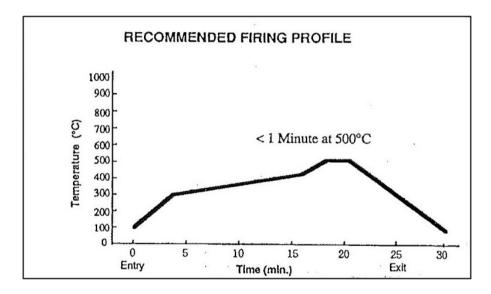
Axarel® 2200, a non CFC alternative, is recommended.

## Drying

 Allow prints to level for 5-10 minutes at room temperature followed by drying for 10-15 minutes at 150°C in a well-ventilated oven or conveyor dryer.

#### Firing

Fire through a belt furnace to a peak temperature of 500-510°C without dwelling at peak temperature (less than 1 minute) with a total firing cycle of 20 to 25 minutes. To avoid entrapment of organics in the fired film it is advisable to allow adequate time (5-10 min) during heating from 300°C to 400°C.



### **Properties**

 Information in this datasheet shows anticipated typical physical properties for Micromax<sup>TM</sup> 7137 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 between 5°C - 30°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.

Printed: 2023-09-21 Page: 2 of 3



## Micromax<sup>TM</sup> 7137

#### **Electronic Inks and Pastes**

#### Safety and handling

For safety and handling information pertaining to this product, read Safety Data Sheet (SDS).

Printed: 2023-09-21 Page: 3 of 3

Revised: 2023-06-26 Source: Celanese Materials Database

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 e

© 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.