

MicromaxTM 7713

Electronic Inks and Pastes

Silver Feed-Through

MicromaxTM 7713 is a low temperature, air firing silver composition. Interconnection to MicromaxTM 7713 can be achieved by soldering or with conductive adhesive. MicromaxTM 7713 may be use for various touch screen applications.

Product benefits

- Low firing temperature
- High adhesion
- Good adhesion on Indium Tin Oxide (ITO) coated glass

Product information

Solvent or thinner	Micromax™ 8250
Silver content	70 %

Rheological properties

Viscosity	67 - 91 ^[1] Pa.s
-----------	-----------------------------

[1]: Brookfield HBT, 10 rpm, 25°C

Application technique

200 - 325	
10 - 15	min
100 - 150	°C
15 - 20	μm
	200 - 325 10 - 15 100 - 150 15 - 20

Electrical properties

Surface resistivity	$3^{[2]}$	mOhm per
		square

[2]: at $25\mu m$ thickness depending on firing conditions

Storage and stability

Shelf life 6^[3] months

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

Additional information

How to use Processing

- Substrates
 - Soda line glass, ITO coated glass
- Screen types

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

Revised: 2023-06-07 Source: Celanese Materials Database



MicromaxTM 7713

Electronic Inks and Pastes

o 200-325 mesh

Thinning

 Paste should not need adjusting prior to use (stirring recommended). MicromaxTM 8250 may be added, with thorough blending, to replace solvent losses or to make slight adjustments in screen printing properties.

Drying

- Allow leveling
- o Dry 10-15 minutes at 100-150 °C

Firing

- The firing/co-firing profile should have two flat regions (plateaus).
 The first is burnout at approximately 325°C for 10 minutes; the second is firing/co-firing at approximately 500-540°C for 2-10 minutes.
- Lower air flow at the peak firing temperature is recommended.

Properties

 Information in this datasheet shows anticipated typical physical properties for MicromaxTM 7713 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 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).

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

Revised: 2023-06-07 Source: Celanese Materials Database



MicromaxTM 7713

Electronic Inks and Pastes

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

Revised: 2023-06-07 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.