# Micromax™ 7162

## Microcircuit and Component Materials

## Electroluminescent Materials

Micromax™ 7162 electroluminescent material is a translucent conductor designed for use as the front electrode for manufacturing Electroluminescent (EL) lamps. It is designed to be used as the first printed layer for lamps fabricated on PET or alternative (non-transparent) substrates which are compatible with Micromax™ electroluminescent compositions.

## Product benefits

- Screen printable front electrode
- Low-cost translucent conductor
- High coverage
- Neutral body color
- Cadmium, Lead, Nickel and Phthalate free*

*Cadmium, Lead, Nickel and Phthalate 'free' as used herein means that cadmium, lead, nickel, and phthalate are not intentional ingredients in and are not intentionally added to the referenced product. Trace amounts however may be present.

## Product information

| | | |
|---|---|---|
| Solvent or thinner | Micromax™ 8260 | |
| Solid content | 41.5 - 44[1] | % |

[1]: 130 °C/2hrs

## Rheological properties

| | | |
|---|---|---|
| Viscosity | 3.5 - 10[2] | Pa.s |

[2]: Brookfield RVT, UC&SP, 10 rpm, 25 °C

## Application technique

| | | |
|---|---|---|
| Mask mesh | 62 - 77[3] | |
| Mask emulsion | 20 - 25 | µm |
| Drying time | 5 | min |
| Drying temperature | 130 | °C |
| Theoretical coverage | 110 - 130[4] | $cm^2/g$ |
| Recommended film thickness, dried | 25 - 40[5] | µm |

[3]: 62T-77T, polyester

[4]: printed on 125µm polyester film

[5]: layer thickness

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## Electrical properties

| | | |
|---|---|---|
| Surface resistivity | ≤1.5E7[6] | mOhm per square |

[6]: at 25µm, printed on 125µm polyester film

## Storage and stability

| | | |
|---|---|---|
| Shelf life | 6[7] | months |

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

## Additional information

How to use

### Processing

- Substrates
  - Print treated polyester film, printed circuit boards
- Screen types
  - Polyester: 77T-62;
  - 20-25µm emulsion
- Printing
  - Semi-automatic or manual
  - The composition must be thoroughly mixed before use. This best achieved by slow, gentle, hand stirring with a clean, preferably plastic spatula for several minutes. Care must be taken to avoid air entrapment. Printing should be performed in a clean and well-ventilated area.
  - Note: optimum printing characteristics are generally achieved in the room temperature range of 20°C - 23°C. It is therefore important that the material, in its container, is at this temperature prior to commencement of printing.
- Layer thickness
  - 20-40µm (dry)
- Work life
  - > 1 hour
- Clean-up solvent
  - Ethylene Diacetate, Acetone
- Drying
  - Box oven: 130°C/5 min.

### Properties

- Information in this datasheet shows anticipated typical physical properties for Micromax™ 7162 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of

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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).



Revised: 2023-03-09 Source: Celanese Materials Database