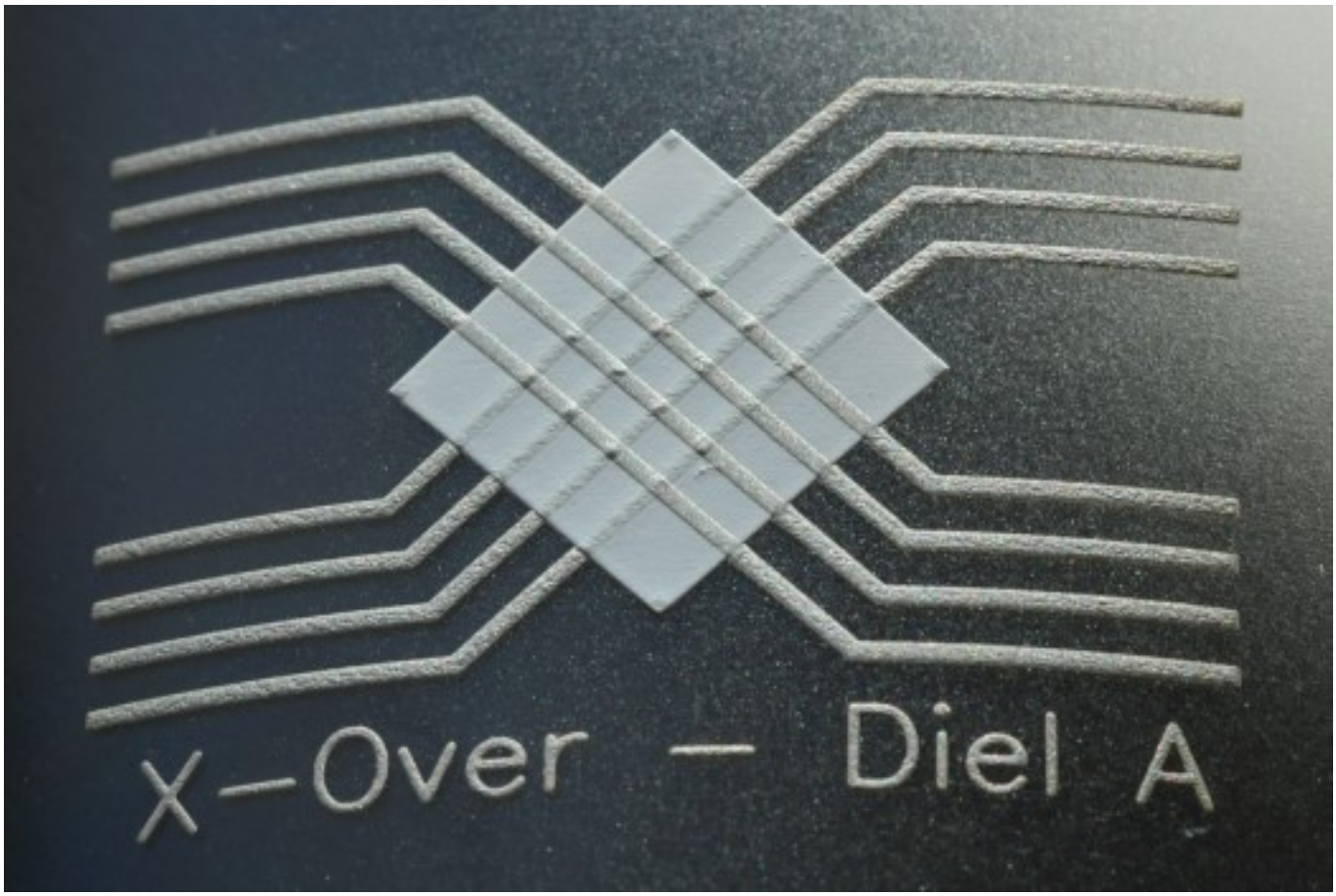
Micromax™ ME779

Electronic Inks and Pastes

Crossover Dielectric

Micromax™ ME779 is a part of the Micromax™ suite of materials developed for In-Mold Electronic applications. Micromax™ ME779 is a solvent based crossover dielectric designed to be used in complex, stretchable multilayer circuits. It performs well in thermoformed and over-molded applications due to its unique chemistry.



Product benefits

- Excellent printability with minimal pin-holing
- High dielectric insulation properties with 2-3 printed layers
- High breakdown voltage
- High elongation with minimal/no cracking after thermoforming

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Product information

Colour	White	
Solvent or thinner	Micromax™ 3610	
Solid content	62.5 - 64.5[1]	%

[1]: 150 °C

Rheological properties

Viscosity	50 - 70[2]	Pa.s

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

Application technique

Mask mesh	280[3]	
Mask emulsion	30	µm
Drying time	20[4]	min
Drying temperature	120[4]	°C
Theoretical coverage	290[5]	cm^2/g
Recommended film thickness, dried	7 - 10[6]	µm

[3]: Screen Types: Stainless steel

[4]: box oven

[5]: at 10µm thickness, based on printing with a 280-030 (0.0012 wire diameter) stainless steel screen

[6]: per layer, recommended 2-3 layers

Typical mechanical properties

Adhesion, cross hatch	5B[7]	class

[7]: Polycarbonate Scotch Tape #600, ASTM D3359-78.

Electrical properties

Dielectric Constant	18	
Breakdown Voltage	≥2500	V

[8]: 1mm traces at 90 degrees with ≥25µm dielectric

Storage and stability

Shelf life	6[9]	months

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

Additional information

How to use

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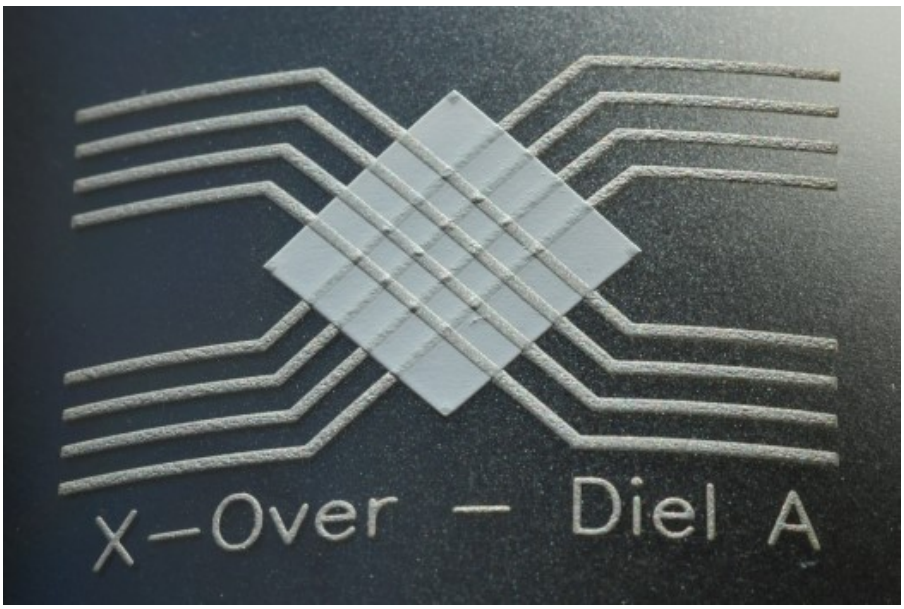

Processing

- Substrates
  - Polycarbonate, surface-treated polyester
- Screen types
  - Polyester, stainless steel
- Printing
  - Reel-to-reel, semi-automatic or manual
- Typical layer thickness
  - 7 ~ 10 µm per layer
  - Printed with a 280-030 (0.0012" wire diameter) stainless steel screen or 77- 48 (threads/cm - wire diameter) PET Screen.
- Recommemded total crossover thickness
  - > 25 µm
- Work life
  - > 1 hour
- Clean-up solvent
  - Ethylene glycol diacetate
- Drying
  - Box oven : 120°C for 20 minutes in a well-ventilated oven
  - Reel-to-reel : 120°C for 4 minutes in a well-ventilated tunnel dryer

Properties

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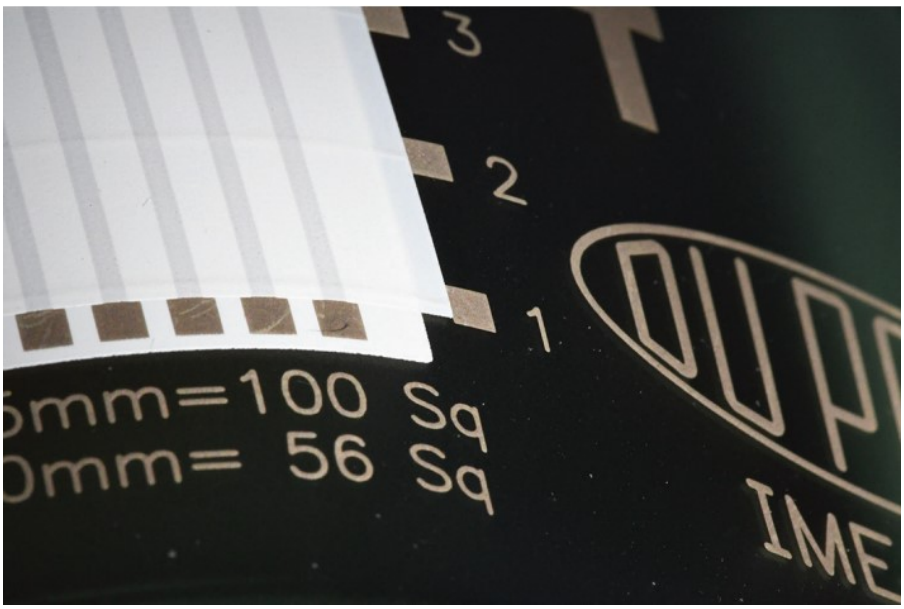
- Information in this datasheet shows anticipated typical physical properties for Micromax™ ME779 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request. Coverage value based on printing with a 280-030 (0.0012" wire diameter) stainless steel screen.



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).

Celanese
The chemistry inside innovation™

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