

Micromax™ PE621

Microcircuit and Component Materials

Ultra-Low Temperature Cure Carbon

Micromax™ PE621 is a very low temperature drying carbon paste. Micromax™ PE621 has been designed to maintain low temperature substrate tolerances as this composition can be processed between 60°C - 100°C. When dried using these low temperatures, Micromax™ PE621 has a unique ability to achieve very good physical and electrical properties in applications that don't require the high conductivity of a silver conductor.

Product benefits

- Very low temperature drying process
- Best thermal cure achieved between 60-100°C
- Excellent adhesion to a variety of substrates

Product information

Solvent or thinner	Micromax™ 8270
Solid content	38.5 - 42 ^[1] %
[1]: 150°C	

Rheological properties

Viscosity	120 - 150 ^[2] Pa.s
[2]: HAT SC4-14/6R, 10 rpm, 25°C	

Application technique

Mask mesh	230 - 325 ^[3]
Drying time	10 - 20 min
Drying temperature	60 - 100 °C
Theoretical coverage	150 ^[4] cm ² /g
Recommended film thickness, dried	8 - 12 µm
[3]: stainless steel	
[4]: at 25µm	

Electrical properties

Surface resistivity	≤50000 ^[4] mOhm per square
[4]: at 25µm	

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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**
 - Polycarbonate, PVC, polyolefin, acrylic, polyester film, polystyrene, PVDF
- **Screen types**
 - Stainless steel mesh - 325-230 wire/inch (SD 50/30-SD 75/36)
 - Polyester mesh - 90-40 to 61-64 thread/cm
- **Printing**
 - Automatic reel-to-reel
 - Semi-automatic flat-bed
- **Clean-up solvent**
 - Triethyl Phosphate
- **Drying**
 - For best conductivity, dry at 60°C - 100°C in a well-ventilated box/ static oven for 10-20 minutes. Conveyorised/tunnel ovens tend to be more efficient and drying times will be shorter. Drying efficiency and print quality/thickness helps ensure the best electrical and physical performance.

Properties

Typical Physical Properties

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	≥1

Information in this datasheet shows anticipated typical physical properties for Micromax™ PE621 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

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be thoroughly mixed prior to use.

Safety and handling

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

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