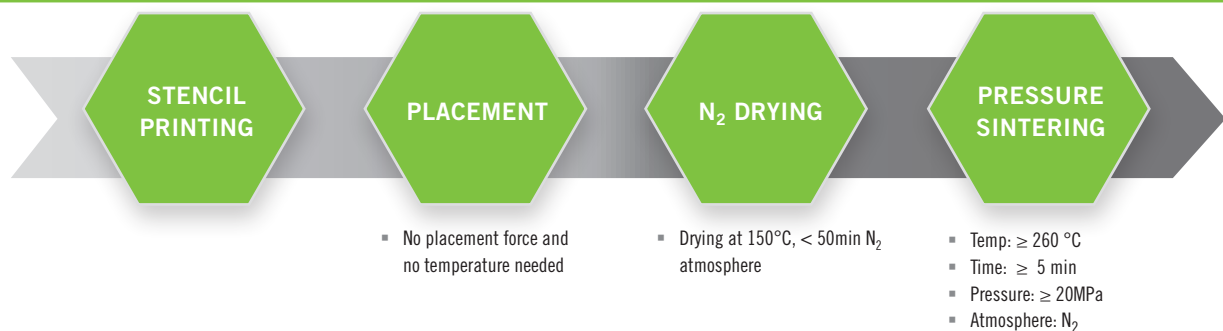




## magiCu PE401 Copper Pressure Sinter Paste

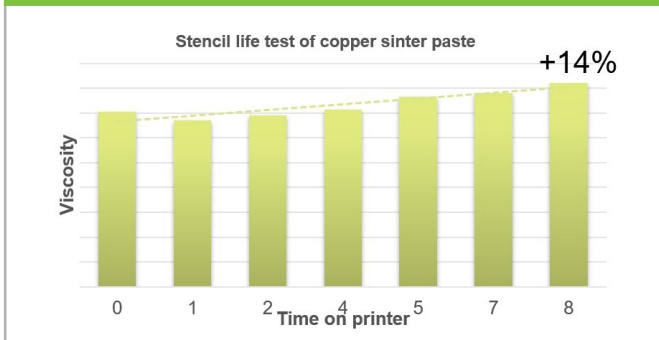
magiCu PE401 is an innovative pressure-assist sintering material suitable for die attach application of high power packages. It forms a highly reliable joint with excellent thermal conductivity. This material is lead-free and does not contain halogens and nano particles.

### Pressure Sinter Paste Wet Placement Process



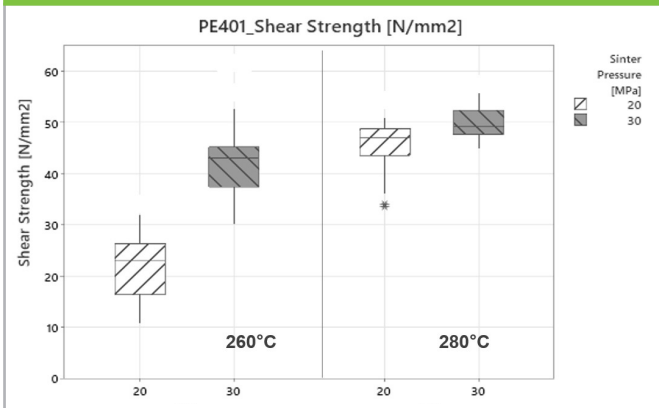
\* Varies depending on assembly

## Printing Application Over Time



- Excellent printing performance overtime
- Consistent paste deposit volume for high production efficiency
- Stable rheology for long stencil life

## Die Shear Strength for Different Process Parameters (Wet Placement Process)



## Benchmarking:

Lead free solder paste vs. magiCu PE401 Cu sinter paste

| Series                       | Solder Paste SnAg3.5 | magiCu PE401 |
|------------------------------|----------------------|--------------|
| Process Temperature (°C)     | ~ 250                | ≥ 260        |
| Thermal Conductivity (W/m.K) | 57                   | > 200        |
| CTE (ppm/K)                  | 27.9                 | 16.7         |

## Product Properties

### magiCu PE401

|                     |                |
|---------------------|----------------|
| Alloy               | Copper         |
| Fillers             | 0 %            |
| Particle size       | ≤ 25 μm        |
| Sinter temperature  | ≥ 260 °C       |
| Halogen content     | Halogen zero   |
| Compatible surfaces | Ag, Au, Cu     |
| Sinter atmosphere   | N <sub>2</sub> |

## Application/Process

|          |     |
|----------|-----|
| Printing | Yes |
|----------|-----|

## Features and benefits

|                   |                 |
|-------------------|-----------------|
| Work life         | 8 hours         |
| Shelf life        | prelim 4 months |
| Residue cleaning  | Not required    |
| Storage condition | 2 - 10 °C       |

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