

New Product: Welco® AP519 T6 Low Temperature No-Clean Printing Paste

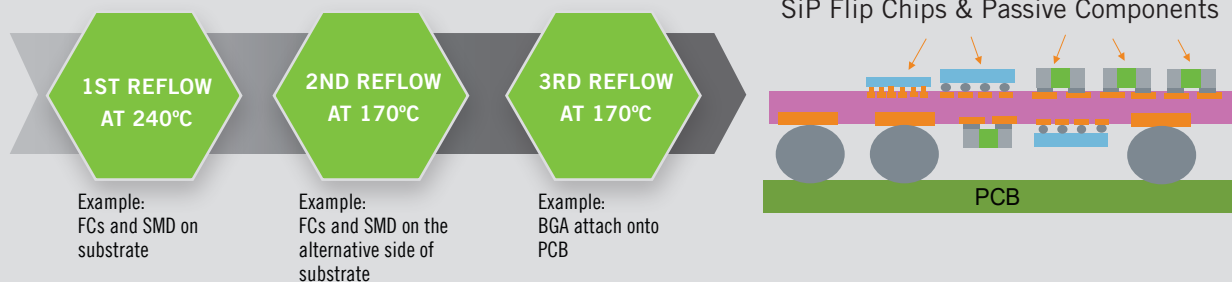
Welco® AP519 T6 solder paste is a low-temperature, state-of-the-art no-clean, lead-free solder paste formulated with Heraeus proprietary Welco® powders. It is specifically designed for processes that require a low peak reflow temperature of $\leq 170^{\circ}\text{C}$, including BGA, SMD component or flip-chip attach processes for fine pitch semiconductor packages such as System-in-Package (SiP), Package-on-Package (PoP) etc.

Welco® AP519 Benefits

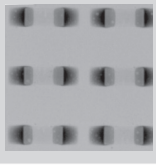
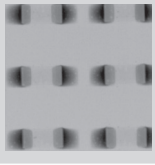
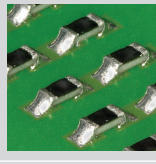
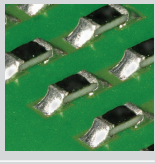
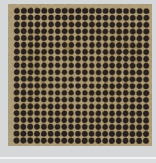
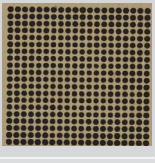
- Uses high-quality Welco® Type 6 powders
 - Narrow size distribution
 - Uniform spherical shapes
 - Batch-to-batch consistency
- Low peak reflow temperature at 170°C
- Best-in-class low-void performance
- Excellent fine pitch paste release
- Long stencil life ($\geq 8\text{hr}$) & long staging life ($\geq 8\text{hr}$)
- Colorless flux residue after reflow



Process and Application



Stencil Life Test

| 8 hours continuous printing | 0 hr | 8 hr |
|--|--|--|
| Low void performance (< 10%) 01005 component attach & reflow x-ray inspection |  |  |
| No bridging or tombstoning 01005 component attach & reflow optical inspection |  |  |
| Consistent fine pitch paste release 100um stencil Opening 50um line spacing Cu OSP substrate |  |  |

Product Properties Table

| Physical Properties | AP519 |
|---------------------|--------------------------|
| Alloy | Sn42/Bi57/Ag1 |
| Powder Type | Welco® Type 6 |
| Halogen Content | Halogen free |
| Flux Classification | No-Clean / Solvent Clean |
| Particle Size | 5 - 15 µm |
| Melting Point | 138 - 142 °C |
| Applications | Printing |

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