Heraeus

Technical Data Sheet

MICROBOND®

Product Type: Solvent Clean Solder Paste
Product Name: Microbond® DA5118 P

Product Description

Microbond® DA5118 P is a printing solvent clean high-lead solder paste suitable for die and clip attach of high reliability power packages. Fulfills demanding voids and cleanliness requirements. Excels in automated high-volume production.

Spacers option available for bondline and fillet height control. Minimize die tilt.

Key Benefits

- Compatible to DA5118 D (Dispensing)
- Exceptional print-to-print consistency
- Wide operating window
- Superior wetting with low flux residue
- Reflow at 360 °C to 390 °C peak
- Low voiding
- Excellent cleanability

Detailed Product Information

Product Description				Application Properties	
Paste	**Flux System**	**Activity Level**	**Halogen Content**	**Application**	**Packaging**
Microbond® DA5118 P	Solvent Clean	ROL0	Halogen-Zero	Printing	250Gms per Jar

Alloy Information				Storage Condition	
Alloy	**Melting Point (°C)**	**Metal Content**	**Particle Size**	**Storage Temperature**	**Shelf Life**
PbSn5Ag2.5	287 - 294	90.0% - 91.5%	25 - 45um (Type 3)	2 - 10 °C	4mths
PbSn5Ag2.5 + Spacers		90.0% - 91.5% (incl. 0.5% Cu)			
PbSn5	306 - 315	90.0% - 91.5%	20 - 38um (Type 4)		

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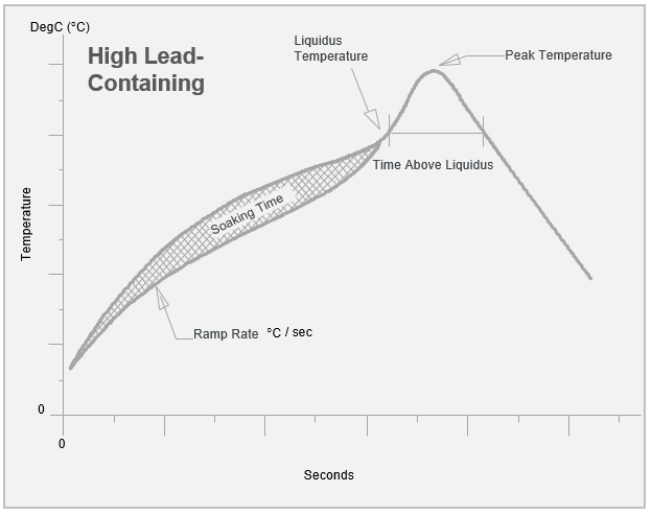
Recommended Reflow Profile



* Graph not drawn to scale

Preheat Ramp Rate: 1.5-2°C/sec
Preheat from RT to 150°C to ensure sufficient delta for the soak zone

Soak Time: 150-300°C for 60-100sec
Soak is preferable for complete solvent evaporation and flux activation for oxide removal before reaching alloy melting temperature (>300°C)

Peak Temperature: 40-80°C above melting temperature
Typically, the peak temperature is 40°C above alloy melting point. High peak temperature is required to reduce the solder void rate during molten stage.

Time Above Liquidus (TAL): 40-90 sec
Generally, all alloy required 40-90 sec for good solder joint formation.

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application)

Cleaning Instructions

After reflow, flux residues remaining on substrate advised to be cleaned off with solvent-based cleaners.
Compatible cleaners (not limited to): Zestron and Kyzen.

Storage Condition

- Store solder paste in tightly-sealed jar. Avoid exposure to sunlight and high humidity.
- Refer to storage temperature on page 1.
- Max expiration date: Refer to expiry date on label of packaged product.

Paste Preparation

- Remove jars from fridge
- Thaw paste for at least 2 hours at room temperature (25°C) before opening
- Do not open jar cap while paste is cold to prevent condensation
- Do not heat the paste beyond room temperature
- Stir paste with spatula for 1 minute before using

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