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Technical Data Sheet

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

Product Description

DA5118 D is a solvent-clean high-lead die and clip attach solder paste suitable for high reliability power packages. Designed for exceptional dispensing capability in automated high-volume production system, it meets demanding voids, wetting and cleanliness requirements.

Key Benefits

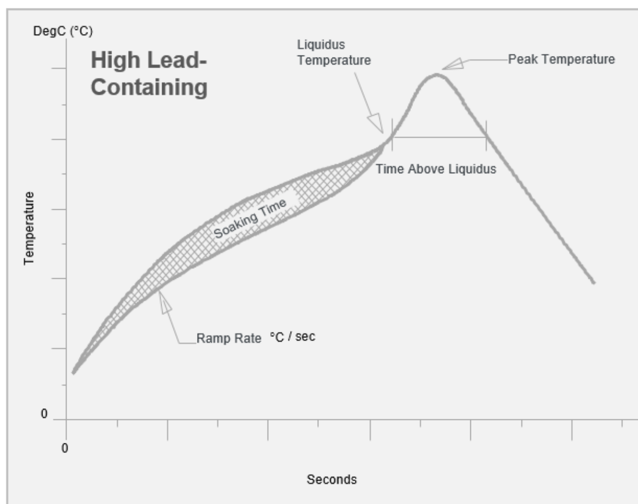
- Consistent dispensability
- Precise dispense volume
- Wide reflow window
- Superior wetting with low flux residue
- Consistent low voids rates
- Excellent cleanability
- Long work life

Detailed Product Information

Product Code				Storage Condition		
Paste	Flux System	Activity Level	Halogen Content	Alloy	Storage Temperature	Shelf Life
DA5118 D	Solvent Clean	ROL0	Halogen-Zero	PbSn5Ag2.5	2 - 10 ºC	6mths
				PbSn2Ag2.5	-10 – 5 ºC	
				PbSn5	2 – 10 ºC	

Alloy Information				Application Properties	
Alloy	Melting Point (ºC)	Metal Content	Particle Size	Application	Packaging
PbSn5Ag2.5	287 - 294	86.0% - 88.0%	25 - 45um (Type 3)	Dispensing	100Gms per 30cc syringe
PbSn2Ag2.5	299 - 304	86.0% - 88.0%	25 - 45um (Type 3)	Dispensing	100Gms per 30cc syringe
PbSn5	306 - 315	86.0% - 88.0%	20 - 38um (Type 4)	Dispensing	100Gms per 30cc syringe

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: 60-80°C above melting temperature
Typically, the peak temperature is 60°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)

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Cleaning Instructions

After reflow, flux residues remaining on substrate advise to be cleaned off with solvent-based cleaners.

Storage

- Store the solder paste in tightly-sealed syringe and avoid exposure to sunlight and high humidity
- Store syringes with tip pointing downwards
- Refer storage condition on page 1.
- Max expiration date: Refer to expiry date on label of packaged product

Paste Preparation

- Remove syringes from fridge
- Thaw with syringes tip pointing downwards
- Thaw paste for at least 2 hours at room temperature (25°C) before using
- Do not open syringe cap while paste is cold to prevent condensation
- Do not heat the paste beyond room temperature
- Speed mixing not recommended

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