Preliminary Microbond® PE830

No Clean Solder Paste

Description

PE830 SnAg3.5-89M30 solder paste is optimized for die attach in power electronics. The revolutionary flux system incorporates synthetic resins that eliminate batch to batch variances. As result, constantly high yield of sub-assemblies can be expected with minimal batch to batch variance. The solder paste is especially optimized to solder Tin-Silver and Tin- Antimony. The flux residues are easy to clean with standard cleaning agents.

Key Features

- Especially suitable for Reflow in vacuum ovens.
- Exceptional print to print consistency
- Min. 8 hours tack and work life
- Low voiding
- Low die tilt
- Low splashing
- Easy to clean

**This picture is solely intended for illustration purposes. Syringes and jars are available in different types and colors and may change over time.*

Paste Properties	
Product ID	PE830 SnAg3.5-89M30
Paste	PE830
Alloy	Sn96.5/Ag3.5
Metal content (%)	89.5
Application	Printing
Viscosity*	M
Halogen content	Halogen Zero (No halogen added in the flux)
Tolerances	Halogen < 50 ppm, measured according to BS EN 14582
Powder Properties	
Powder type	Type 3
Particle size (µm)	25 – 45
Alloy	Sn96.5/Ag3.5
Melting point (°C)	221
Flux Activity	
Activity level (J-STD-004)	**RELO
Classification	No Clean/ Solvent Clean

**Preliminary

*D = Dispense grade M = Print grade H = Print grade, high L = Dipping/Jetting grade, Low

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 particular application. The Heraeus logo, Heraeus, Welco™, Microbond® and mAgic®, and the Welco, Microbond and mAgic figurative mark are trademarks or registered trademarks of Heraeus Holding GmbH or its affiliates. All rights reserved.

Heraeus

Electronics

Preliminary Microbond® PE830

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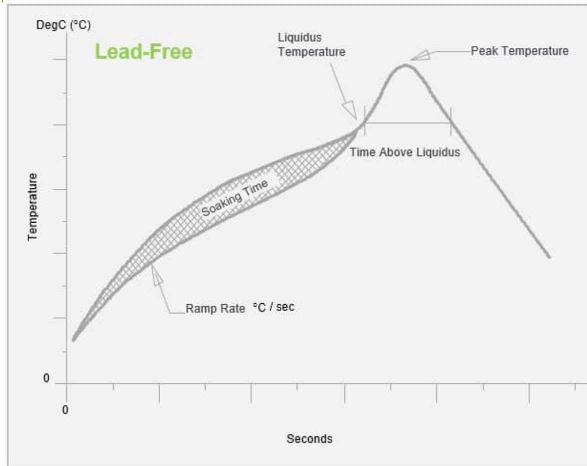
Paste Properties



* Graph not drawn to scale

Average ramp rate (°C/s)	1 – 3
Peak temperature (°C)	15 (min) – 40 (max) above melting temperature
Time above liquidus (s)	60 – 120
Reflow atmosphere	Reflow in vacuum

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Cleaning Instruction

For cleaning of wet paste or if desired for cleaning of flux residues Zestron and Vigon cleaners can be used. Flux residues have to be removed within max, 4 hours after reflow by spraying deionized water of min. 50 °C. For alternative cleaning methods– see separate cleaning recommendations.

Paste Preparation

- Remove paste from fridge: Before opening the package, leave paste for at least 4 hours (depending on jar/ cartridge size) at room temperature, so that paste warms up
- Do not open jar/cartridge while paste is cold to prevent condensation
- Do not heat the paste beyond room temperature
- Before using of paste jar: To obtain uniform, stable viscosity stir paste for 1 to 2 min, using a stainless steel or chemically resistive plastic spatula

Storage Conditions

Storage temperature	1 – 10 °C
Max expiration date	Refer expiry date on the label of the packaged product

- Store the solder paste in tightly sealed containers and avoid exposure to sunlight and high humidity
- Store cartridges with tip pointing downwards

Note: Preliminary data is subjected to changes. For more information please contact your local Heraeus office.

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