# Heraeus

## **Technical Data Sheet**



Product Type: No Clean Solder Paste Product Name: Microbond® SMT712 Product ID: FC712 SAC305-88P5

#### Description

FC712 SAC305-88P5 solder paste is a state-of-the-art lead free no clean solder paste that promotes outstanding wetting and minimizes soldering defects. The FC712 flux system is specifically optimized for lead free alloys, e.g. Sn/Ag/Cu. This formula provides superior performance on a variety of surfaces finishes and leaves behind a clear residue.

#### **Key Benefits**

- Good printing performance for high speed printing
- Excellent wetting performance
- Low void in the air reflow
- Transparent residue
- Reduced head-on-pillow issue in BGA soldering

#### **Applications**

Printing

Product Code and Alloy									
	Р	roduct Code	Powder Properties						
Paste	Alloy	Metal Content	*Viscosity	Powder Type	Particle Size	Alloy	Melting Point		
FC712	SAC305	88%	Р	5	15 – 25 μm	Sn96.5/Ag3/Cu0.5	217 °C		

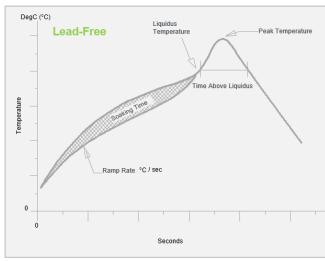
\*D = Dispense grade P = Print grade L = Dipping/Jetting grade, Low

Flux Activity						
Activity Level (J-STD 004)	Classification					
ROLO	No Clean/ Solvent Clean					

# Halogen Content Halogen-Zero (No halogen added in the flux)

Tolerances: Halogen < 50 ppm; measured according to BS EN 14582

#### **Recommended Reflow Profile**



<sup>\*</sup> Graph not drawn to scale

Recommended Profile						
Average Ramp Rate	1 – 3 °C/s					
	15 °C (min) –					
Peak Temperature	40 °C (max)					
	above Melting					
	Temperature					
Time above liquidus	45 – 90 s					
Reflow Atmosphere	Reflow in Air					
The first of the f	or in N <sub>2</sub> with					
Type 3 – 5	< 2000 ppm 0 <sub>2</sub>					

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 may remain on the circuit and do not need to be washed. For cleaning of wet paste or if desired for cleaning of flux residues Zestron and Vigon cleaners can be used – see separate cleaning recommendations.

#### Storage

- Store the solder paste in tightly-sealed containers and avoid exposure to sunlight and high humidity
- Max expiration date: please refer to the expiry date on the label of the packaged product
- Storage condition in the refrigerator at 2 -10 °C

#### 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

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