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# Technical Data Sheet

MICROBOND™

**Product Type:** No Clean Solder Paste
**Product Name:** Microbond® SMT712
**Product ID:** FC712 SAC305-88P4

## Description

FC712 SAC305-88P4 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

| Product Code | | | | | Powder Properties | | |
|---|---|---|---|---|---|---|---|
| Paste | Alloy | Metal Content | *Viscosity | Powder Type | Particle Size | Alloy | Melting Point |
| FC712 | SAC305 | 88% | P | 4 | 20 – 38 µm | Sn96.5/Ag3/Cu0.5 | 217 °C |

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

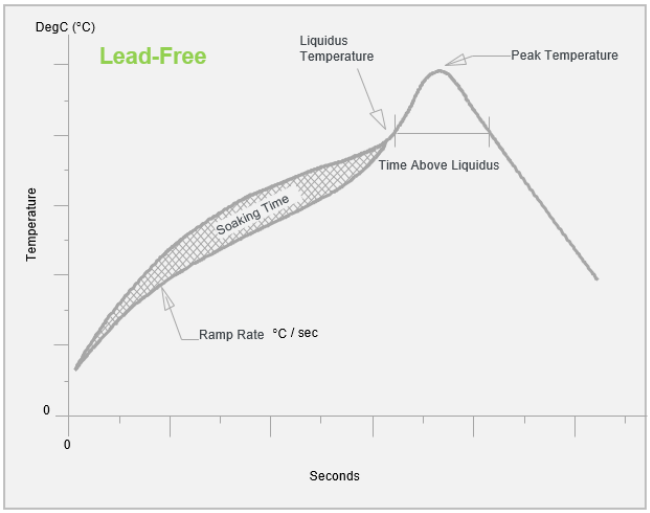
## Flux Activity

| Activity Level (J-STD 004) | Classification |
|---|---|
| ROL0 | 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




* Graph not drawn to scale

| Recommended Profile | |
|---|---|
| Average Ramp Rate | 1 – 3 °C/s |
| Peak Temperature | 15 °C (min) – 40 °C (max) above Melting Temperature |
| Time above liquidus | 45 – 90 s |
| Reflow Atmosphere<br>Type 3 – 5 | Reflow in Air or in $N_2$ with < 2000 ppm $O_2$ |

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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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