

AWS980-M305-D-885

Water Soluble Solder Paste for SiP



Product Description

AWS980-M305-D-885 is a lead-free, water-clean solder paste specially designed for SiP. AWS980-M305-D-885 has a wide print process window and bestows repeatable print deposits for 0201 pads. It confers superb wetting on Ni-plate and Cu OSP in nitrogen. AWS980-M305-D-885 bestows water-soluble residue that must be removed using warm water in a batch cleaner.

AWS980-M305-D-885 has been optimised to have an unbeatable list of benefits, some are:

- Halogen-free (ORM0) flux system – no issue with reliability.
- Trouble-free printing – good reproducibility of print deposits.
- Stable formulation – no paste drying on the stencil after 8 hours of printing.
- Fast wetting – no satellites and low void content.
- Full pad coverage – high joint reliability.
- Water-clean formulation – debris-free after water wash (immersion and spray cleaning systems).

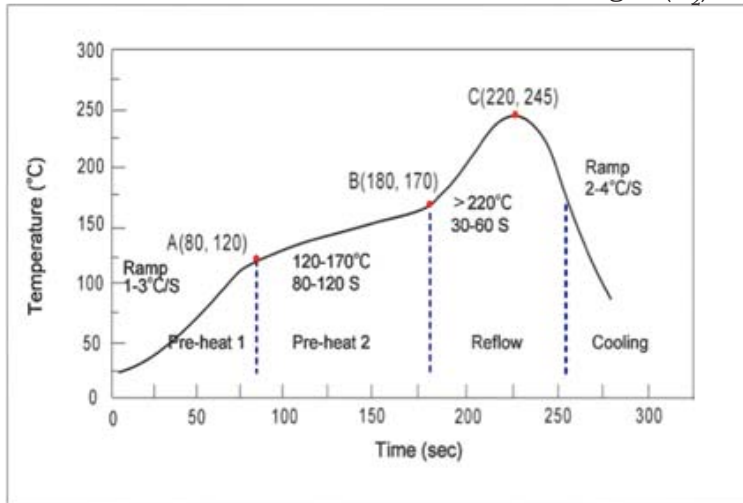
Specification (Preliminary)

Item	Result
Alloy	
Alloy Composition	Sn96.5/Ag3.0/Cu0.5
Melting Temperature	217 - 220 °C
<small>Differential Scanning Calorimetry</small>	
Powder Size	20 – 38 μm, Type IV, Mesh Size -400 / +635
<small>IPC TM-650 2.2.14</small>	
Paste Flux	
Flux Content	11.5 +/- 1.0 wt%
<small>IPC-TM-650 2.2.34.1</small>	
Halide Content	Not detected
<small>JIS Z 3197 8.1.4.2.1</small>	
Water Extract Resistivity	> 1 x 10 ⁵ Ω-cm
<small>JIS Z 3197 8.1.1</small>	
Copper Mirror Test	Classified as “M”, Pass
<small>IPC-TM-650 2.3.32</small>	
Copper Corrosion Test	Pass
<small>IPC-TM-650 2.6.15</small>	
Flux Activity Classification	ORM0
<small>IPC J-STD-004</small>	
Solder Paste	
Viscosity	140 +/- 30 Pa.s
<small>JIS Z 3284 Annex 6</small>	
Surface Insulation Resistance	> 1 x 10 ⁸ Ω, Pass
<small>(85°C, 85%RH, 168hrs)</small>	
<small>IPC-TM-650 2.6.3.3</small>	
Electromigration	Pass
<small>(85°C, 88.5%RH, 596hrs)</small>	
<small>IPC-TM-650 2.6.14.1</small>	

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Recommended Reflow Profile

AWS980-M305-D-885 can be reflowed in nitrogen (N₂) with the following profile:



Residue Removal

Post-soldered residue must be removed using water or semi-aqueous cleaners.

Storage, Handling and Shelf Life

AWS980-M305-D-885 can be stored at 2-8°C, and used within 6 months. AWS980-M305-D-885 require 3-4 hours to reach 25°C from storage (2-8°C). Jars can be kept at 25°C or less (away from a heat source) and should be consumed within 3 days.

Health and Safety

Do not handle the paste with your bare hand. Use proper tool when handling the paste. If the paste touches the skin, wash thoroughly with soap and water. For more information, please refer to Material Safety Data Sheet.

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