

ALPHA WS-898 Solder Paste

Water Soluble Solder Paste for Stencil Printing

DESCRIPTION

ALPHA WS-898 is a solder paste designed for stencil application for either surface mount or solder bumping process.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- The flux residues can be easily removed by warm DI water washing.
- PCB, which has been applied with ALPHA WS-898 and cleaned with water, results in better cleanliness compared to PCB applied with rosin type solder paste and cleaned with a solvent.
- Its optimized solvent system improves the rolling property and printability. Also, the tack life increases to more than two times compared to the conventional solder paste.

APPLICATIONS GUIDELINES

ALPHA WS-898 is designed for stencil printing with excellent stencil life over 8 hours, although it depends on the environmental condition. The following is an example of specification. Regarding metal loading and viscosity, various specifications are available. Please, contact our sales office for further information on the different specifications.

Application	Alloy Type	Metal Loading	Powder Size	Viscosity ($\pm 10\%$)
Stencil Printing (Metal Mask)	96.5 Sn/3.0 Ag/0.5 Cu	~85 to 90% (Typical)	Type 4, 5, 6	~ 250 to 350 Pa.s (Typical)

HALOGEN STATUS

The flux residues can be cleaned with DI water. For the best results, warm DI water is recommended.

Cleaning Process

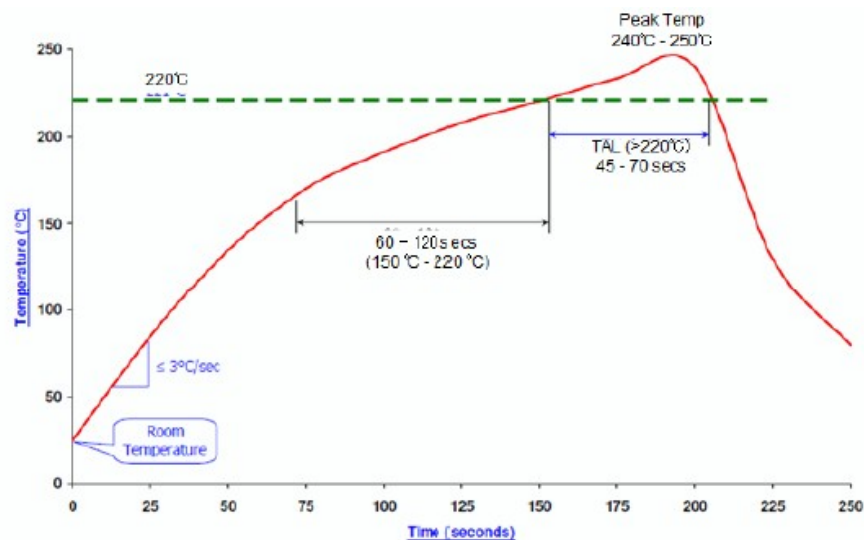
Cleaning Bath #1 (50 to 60 °C Temp, Spray) → Cleaning Bath #2 (50 to 60 °C Spray) → Cleaning Bath #3 (50 to 60 °C Rinse) → Dry (Air Blow)

Inline spray with pressurized water jets are recommended

PHYSICAL PROPERTIES

Properties	Value
Classification	ORH0 (J-STD-004)
Spreading Test (JIS-Z-3197)	86% (@96.5Sn/3Ag/0.5Cu)
Tackiness Test (JIS-Z-3284 Appendix 9)	>100gf (@ 8hours)
	Solder: 96.5Sn/3Ag/0.5Cu, Type 5&6
SIR Test	Pass, $>1.0 \times 10^9$ (After cleaning a board)

REFLOW PROFILES



Note: This is just an illustration. Graph not strictly to scale

RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

STORAGE

Store in a dark cool place. (0 to 10 °C)

- The production environment should be 23 to 25 °C and 40 to 60% relative humidity.
- When refrigerated, warm up paste container to room temperature for up to 4 hours. ALPHA WS-898 should be allowed to achieve room temperature before use. Paste must be 19 °C (66 °F) before processing. Verify paste temperature with a thermometer to ensure paste is at 19 °C (66 °F) or greater before setup of printer.
- Close the lid of the container after each work.
- While WS-898 contains no organic solvent designated by regulations, its use in typical reflow processes will generate a small amount of decomposition and vapors. Avoid skin contact and fume inhalation.
- Shelf life monitoring is on-going and recommended shelf life is 3 months when it is stored in a refrigerator at 0 to 10 °C provided the container remains sealed.

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
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 www.macdermidalpha.com

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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