



FCT ASSEMBLY

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Technical Bulletin WS161A Solder Paste

DESCRIPTION:

WS 161A WATER SOLUBLE SOLDER PASTE is a water-soluble paste designed to meet the requirements for reliable solder joints in PCB board assemblies. This solder paste is designed so that the flux residues are to be rinsed in water with an excellent solder finish. This paste is specifically designed for extended stencil life and tack time.

ATTRIBUTES:

- *Excellent printability
- *Excellent Solder finish
- ***Wide operating window (good tack time and working life)**

PERFORMANCE:

PARAMETER	VALU (English)	VALUE (Metric)
Typical print thickness (20-25 mil pitch)	0.006"-0.008"	150-200 microns
Minimum pitch	20 mil	500 microns
Minimum pad width	10 mil	250 microns
Tack time	>8 hours (depending on environmental conditions)	
Slump (per IPC-SP-819):	4 hours @ 25C < 1-%	10 min. @ 100C < 1%

PROCESSING PARAMETERS

Refrigeration and storage: Do not freeze solder paste. Store at 40-60F(5-15C) for extended shelf life. You must set material out 24 hours prior to use. If the paste does not reach room temperature, the paste may stick to the stencil, not roll into stencil pads, de-wet pads during reflow, outgas in reflow or produce solder balls over the board. Avoid direct sunlight.

Mixing paste: The paste should be mixed after the paste has reached room temperature. Please stir for ~1-2 minutes before applying to the stencil. This will shear the viscosity and insure complete blending

Handling: The optimum temperature and humidity are 75F(23C) or below and 60% or below, respectively.

Printing: Typical printing specifications include a squeegee pressure of 200 g/cm, a speed of 25 mm/sec and a durometer of 70-90 or above for 15 mil pitch. Soldering conditions will depend on the size, mass, and component density of the assembly.

Reflow: Reflow should be performed at ~35-40C above the liquid temperature of the alloy (higher temperatures for boards with many heat sinks). This temperature should be maintained for ~30-45 seconds. Profiles should have less than a 3 minute preheat time above 260F(130C) to insure proper wetting of fine pitch leads.

Cleaning: Clean with DI water at a minimum temperature of 130F(55C) {range is 130-155F(55-65C)} and a minimum pressure of 40psi. Best results are obtained if the boards are cleaned immediately after reflow.

Available in 250, 500 and 1,000 gram jars and cartridges.

For safety information, please refer to the MSDS sheet.

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