



QUALITEK®

Delta Elite™

788

Water-Soluble Solder Paste

DESCRIPTION

788 is a halide free, slump resistant, water-soluble solder paste designed for surface mount and other electronic assembly applications. 788 utilizes a low volatility solvent system, resulting in a tack time over 12 hours. Post soldering residue can be easily removed with warm DI water cleaning systems.

BENEFITS

- **Halide free**
- **Non-hygroscopic**
- **High tack force**
- **High slump resistance**
- **Flux residues easily removed with warm DI water**
- **Pleasant odor**
- **Extended stencil life**

APPLICATION

STENCIL PRINTING/PARTICLE SIZE

≥ 50 mil pitch: Use -200+325 mesh

≥ 16 mil pitch: Use -325+500 mesh

≤ 16 mil pitch: Use -400+635 mesh

ALLOYS

Sn63/Pb37, Sn62/Pb36/Ag2, etc.

(Meets J-STD-006 Specification)

METAL CONTENT

Stencil Printing: 90%

Screen Printing: 88%

REFLOW PROFILE

The melting temperature of the solder and the heat resistance of components determine reflow Profile. 788 can be processed in most reflow media, (i.e. IR, Vapor-phase, Forced convection, etc.). Ramp rate of 2.5-3.0°C per second is desirable, since most components are rated for 4.0°C per second.

PHYSICAL / CHEMICAL CHARACTERISTICS

Color and Appearance	Metallic Gray
Slump Test	Pass
Copper Mirror Test	Pass/No breakthrough
Surface Insulation Resistance(cleaned)-Ohms	
J-STD-004	>1.0 x 10 ¹¹
pH-5% Aqueous Solution (Flux Extract)	7.0 - 8.0
Viscosity	
Malcom ¹	210-250 kcps, 90% metal, (-325+500 mesh)
Brookfield ²	1000 kcps +/- 10%, 90% metal, (-325+500 mesh)
Tack³	
Time	>12 hours
Initial tack force	38.9 grams (1.17g/mm ²)
Tack retention after 24 hours	23.2 grams (.70g/mm ²)

SHIPPING & STORAGE

Recommended Storage Temperature 35°-50°F

SHELF LIFE

Unopened Container	35°-65°F	6 Months (from DOM)
	77°F	1 Months (from DOS)

1. Malcom PCU-Series, 10 RPM, 25°C
2. Brookfield RVTD, TF spindle, 5 RPM, 25°C, 0.75" spindle depth
3. Per IPC-TM-650 2.4.44

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Consult MSDS for health and safety information

788 PROFILE

