



QUALITEK®

Delta Elite™ DSP 818

Solder Paste, Low Residue No-Clean

DESCRIPTION

818 No-clean is a low residue solder paste designed for surface mount and other electronic assembly applications. The unique properties of this formula provide excellent activity, long stencil life, long tack time, high print speed, and a longer shelf life. Post soldering residues are transparent, non-corrosive, non-conductive.

BENEFITS

- Bellcore compliant
- 24 hour stencil life
- Excellent wetting on OSP
- 48 hour tack time
- Prints up to 8 in per sec.
- Low residue
- Air or nitrogen reflow

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. 818 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
Copper Mirror Test	Pass/No breakthrough
J-STD Classification	ROLO
Silver Chromate (Chloride & Bromide Test)	Pass/No discoloration
Surface Insulation Resistance	
Bellcore ⁴	4.12 x 10 ¹² ohms (4 days, 35°C, 85% R.H.)
J-STD-004	9.8 x 10 ¹² ohms (7 days, 85°C, 85% R.H.)
pH-5% Aqueous Solution (Flux Extract)	3.0 - 5.0
Softening Point	125°C (257°F)
Electromigration, Bellcore ⁴	Pass
Viscosity	
Malcom ¹	140-200 kcps, 90% metal, (-325+500 mesh)
Brookfield ²	900 kcps +/- 10%, 90% metal, (-325+500 mesh)
Tack ³	
Time	48 Hours (22°C, 45% R.H.)
Initial tack force	100.2 grams
Tack retention after 24 hours	95.6 grams

SHIPPING & STORAGE

Recommended Storage Temperature 35°-50°F

SHELF LIFE

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

1. Malcom PCU-Series, 10 RPM, 25°C
2. Brookfield RVT D, TF spindle, 5 RPM, 25°C, 0.75" spindle depth
3. Per IPC-TM-650 2.4.44
4. Bellcore GR-78-CORE

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Consult MSDS for health and safety information

818 PROFILE

