



Multicore

MULTICORE WS300

Lead-Free Water Wash Solder Paste



Henkel

MULTICORE WS300 is a lead-free, high activity, water washable solder paste with superior cleaning characteristics, and is suitable for high speed, fine pitch printing applications. This unique material has a wide process window, long open and abandon times, and is highly resistant to humidity and slump. The high activity flux of MULTICORE WS300 solder paste allows for excellent wetting to a wide range of surface finishes, delivering robust performance and process flexibility to manufacturers worldwide.



MULTICORE WS300

Lead-Free Water Wash Solder Paste



Features and Benefits

- Effective over a wide range of printer cycle times and print speeds
- Excellent printer open time and between print abandon time
- Long component tack time
- Excellent slump resistance
- Effective over a wide range of reflow profiles in air or Nitrogen
- Residues removed with deionized water rinse

| VISCOSITY | | |
|-------------------------|-------------------------|-------------------------------|
| | | 97SC - MULTICORE WS300 AGS 89 |
| Brookfield Viscosity/cP | | 490,000 |
| Malcom Profile | T1 10s ⁻¹ | 0.58 990 |

| TACK TIME | |
|--|-------------------------------|
| Tack-Time Profile Tack/gm ⁻² | 97SC - MULTICORE WS300 AGS 89 |
| 0 hours | 0.8 |
| 7 hours | 0.8 |
| 16 hours | 0.6 |
| 24 hours | 0.5 |

> 24 hours tack time

Testing Results

ANSI/J-STD-004 Testing

- Copper Mirror = H designation
- Halide Content = 1 designation
- Fluoride Testing = None Detected
- J-STD flux classification ORH1
- Passes SIR after cleaning (2 x 10⁹ Ω resistance)

ANSI/J-STD-005 Testing

- Hot and Cold Slump – PASS
- Tack Time > 24 hours

Moisture Resistance

- No moisture uptake after six hours at 38°C/85%RH
- Pass J-STD-005 Slump after eight-hour exposure to 25°C/95%RH

Bellcore (after cleaning)

- Passes SIR 5.2 x 10¹⁰ Ω
- Passes ECM 7.6 x 10⁸ Ω

Cleanable up to three days after reflow

- Batch cleaning in deionized water
- No halides detected after cleaning with Ion Contamination Tester

Printing Characteristics

- Suitable for fine pitch (16 mil), high speed printing applications with type 3 powder (AGS) & type 4 (DAP) powder
- Wide printing process window
- Good printer open time and tack-life
- Extended between-print abandon time
- With refrigeration, six-month stability

| PRINTING FEATURES | |
|--|--|
| Features | Benefits |
| Wide Print Process Window • Print Speed = 1 in./sec. – 4 in./sec. • Print Pressure = 12 to 14 lbs. | Easy drop-in replacement |
| > 4-Hour Abandon Time | Less scrap and waste on production lines. More cost-effective product! |



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