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Technical Datasheet

Partner-Paste PF-32G FMQ SN96C (SnAg3.8 Cu0.7) Lead Free No Clean Paste

Product Description

Partner Paste PF- 32G FMQ is a lead-free,* no clean, ready to use solder paste for air or nitrogen reflow applications. The unique flux composition of **Partner Paste PF-32G FMQ** gives excellent print and reflow characteristics with lead-free alloys. Print speeds can be achieved up to 150mm/s with excellent characteristics down to 16-20 mils pitch. The post soldering residues of **Partner Paste PF-32G FMQ** are very low and concentrated around the pad. **Partner Paste PF-32G FMQ** is a no clean formulation. The residues can stay on the board after reflow and will not interfere with in-circuit testing. The residues are not harmful: see test results of SIR. The paste flux system of **Partner Paste PF-32G FMQ** shows long tack life of up to 24 hours and long stencil life of up to 8 hours. The paste flux compositions allows reflow profiles with a peak temperature from 235 °C up to 250°C and allows a wide process window with lead free solders. **Partner Paste PF-32G FMQ** is also suitable for vapour phase soldering at temperatures as low as 230°C. **Partner Paste PF-32G FMQ** is available as a licensed lead free alloy. SN96C-SnAg3,8Cu0,7 (JPN 3027441; US 5527628). The paste is also available in SN96CI specification: please ask for details.

Performance Characteristics:

- Classified per J-STD-004 as: RoL0
- Classified per EN 61190 -1-1:RoL0
- RoHS compliant*
- Compatible with RoHS compliant solder masks
- Bright and shiny solder joints
- Long tack time, up to 24 Hours.
- Excellent print results with 16 and 20 mils pitch.

* **Partner Paste PF-32G FMQ** contains, to our knowledge, no substances in concentrations which are prohibited by the European legislation 2002/95/EG ("RoHS").

Physical Properties:

(Data given for SN96C 89% metal, -325+500 mesh)

- Viscosity: (typical): 185 Pas
 Malcom viscosimeter @ 10 rpm and 25°C
- Initial Tackiness (typical): 138 gf
 Tested to J-STD-004, IPC-TM-650, Method 2.4.44
- Slump Test: pass
 Tested to JIS-Z-3284 Appendix 7; Appendix 8
- Solder Ball Test: Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.4.35
- Wetting Test: Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.4.45

- Thixotropic index: 0,55
- Copper Mirror Corrosion: Low
 Tested to J-STD-004, IPC-TM-650, Method 2.3.32
- Silver Chromate Test: Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.3.33
- Chlorides and Bromides: None detected
 Tested to J-STD-004, IPC-TM-650, Method 2.3.35
- Corrosion Test: Low
 Tested to J-STD-004, IPC-TM-650, Method 2.6.15
- Fluoride by Spot Test: Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1
- SIR, IPC: Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3

	Reference	PF-32G FMQ SN96C
Day 1	1.6 x 10 ¹⁰	1.0 x 10 ¹⁰
Day 4	9.4 x 10 ⁹	8.1 x 10 ⁹
Day 7	8.4 x 10 ⁹	7.3 x 10 ⁹

Electrochemical migration: pass



GLOBAL PARTNERS FOR LEAD-FREE SOLDERS

Partner-Paste PF-32G FMQ SN96C (SnAg3.8 Cu0.7)

Standard Application:

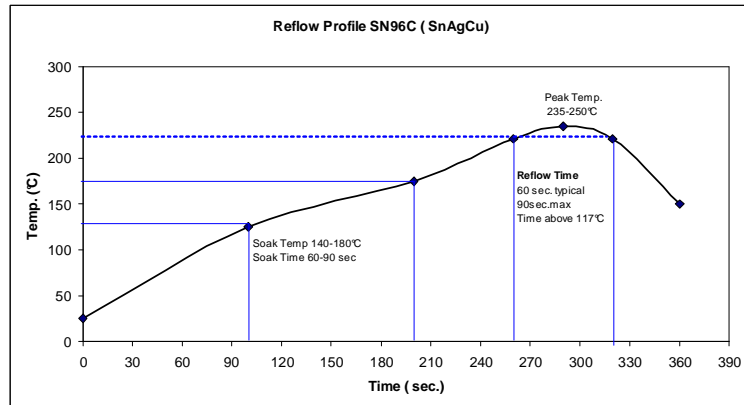
89-88,5% Metal for Stencil Printing

86% Metal for Dispensing

Partner Paste PF-32G FMQ is available in SN96C/SN96CI (SnAg3,8Cu0,7) alloys. Type 3 powder from 45-20 micron is normally recommended for fine pitch applications but Type 4 powder from 20-38 micron is also available.

Recommended Reflow Profile:

The recommended reflow profile for **Partner Paste PF-32G FMQ** offers a wide process window allowing adjustment to suit component board loadings. The illustrated profile is based on a full convection reflow system.



Printing Parameters:

Squeegee Blade

Stainless steel

Squeegee Speed

Capable to a max. printing speed of 150mm/sec

Stencil material

Stainless steel,

Temperature/Humidity

Optimal conditions are 21-25°C and 35-65% humidity.

Cleaning:

Partner Paste PF-32G FMQ is a no clean formulation. The post soldering residues left on the board are non-conductive and non corrosive and do not require removal in most applications. Where required these residues can be easily removed with a variety of cleaning agents used in automated cleaning systems.

Packaging:

Jars: 250g, 500g

Syringe: 5cc, 10cc, 30cc,

Cartridges: 500g, 1000g

Storage and shelf life:

It is recommended that **Partner Paste PF-32G FMQ** is stored in clean dry conditions with temperature 5-10°C to maintain consistent reflow and print characteristics. **Partner Paste PF-32G FMQ** should be equalized to room temperature prior to printing (minimum 8 hours). Do not use excessive heating. Shelf life for jars is 6 months from date of manufacture when stored and handled under proper conditions and 4 months for syringes and cartridges stored in an upright position.

Health & Safety:

Read the material safety data sheet and warning label before use.

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