



**Avontoun Works, Linlithgow  
West Lothian, EH49 6QD  
Tel: +44(0)1506 847710  
Fax: +44(0)1506 848199  
E-mail: sales@dklmetals.co.uk  
Internet: www.dklmetals.co.uk**



## Technical Datasheet

### Partner-Paste PF-26 FMQ SN100C (SnCu 0.7Ni) Lead-Free No Clean Paste

#### Product Description

**Partner Paste PF-26 FMQ** is a ready to use, lead-free\* no-clean solder paste based on the SN100C alloy system for use in air or nitrogen reflow applications and provides excellent print and reflow characteristics. Print speeds can be achieved up to 100mm/s with excellent print characteristics down to 16-20 mils pitch.

**Partner Paste PF-26FMQ** offers excellent open time, extended abandon time and good soldering activity with pin-probable post soldering residues. **Partner Paste PF-26 FMQ** is a no clean formulation. The non corrosive residues can stay on the board after reflow and will not interfere with in-circuit testing. **Partner Paste PF-26 FMQ** provides long stable tack life of up to 48 hours and long stencil life of up to 8 hours. The paste flux composition allows reflow profiles with a peak temperature from 24 °C up to 250°C and allows a wide process window with lead free solders. **Partner Paste PF-26 FMQ** is also suitable for vapour phase soldering at temperatures as low as 235°C.

**Partner Paste PF-26 FMQ** is available as a licensed Lead Free alloy: SN100C-SnCu0,7Ni (EU 0985486; JPN 3152945; US 6180055). Properties of SN100C are available on a separate data sheet.

#### Performance Characteristics:

- Classified per J-STD-004 as: RoLO
- Classified per EN 61190 -1-1:RoLO
- RoHS compliant\*
- Clear Pin-probable residues
- Excellent hot slump up to 190°C
- Long tack time of up to 48 hours.
- Excellent print results with 16 and 20 mils pitch.

\* **Partner Paste PF-26 FMQ** contains, to our knowledge no substances in concentrations which are prohibited by the European legislation 2002/95/EG ("RoHS").

- Thixotropic index: 0.6
- 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

#### Physical Properties:

(Data given for SN100C 88.6% metal, -325+500 mesh)

- Viscosity: (typical): 180 Pas  
Malcom viscosimeter @ 10 rpm and 25°C
- Initial Tackiness (typical): 1%=150 gf  
Tested to J-STD-004, IPC-TM-650, Method 2.4.44
- Slump Test: Pass  
Tested to J-STD-004, IPC-TM-650, Method 2.4.35
- 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

	SN100C PF26	Reference
Day 1	2.1 x 10 <sup>9</sup>	5.4 x 10 <sup>9</sup>
Day 4	1.2 x 10 <sup>9</sup>	3.0 x 10 <sup>9</sup>
Day 7	1.0 x 10 <sup>9</sup>	2,8 x 10 <sup>8</sup>

Electrochemical migration: pass



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### Partner-Paste PF-26 FMQ SN100C (SnCu 0.7Ni)

## Standard Application:

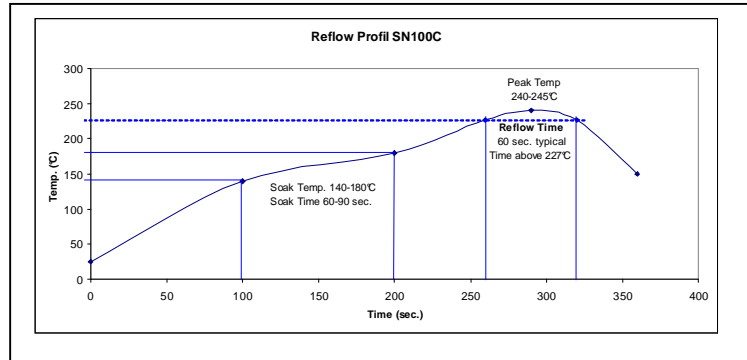
88-89% Metal for Stencil Printing

86-87% Metal for Dispensing

**Partner Paste PF-26 FMQ** is available in Type 3 powder from 45-20 micron and is normally recommended for fine pitch applications down to 0.4 Type 4 powder from 20-38 micron is also available for applications with 0.3 pitch under the designation **Partner Paste PF-26 SFMQ**.

## Recommended Reflow Profile:

The recommended reflow profile for **Partner Paste PF-26 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 100mm/sec

Stencil material

Stainless steel

Temperature/Humidity

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

## Cleaning:

**Partner Paste PF-26 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, 6cc, 12cc DEK ProFlow and MPM Pumphead approved

## Storage and shelf life:

It is recommended that **Partner Paste PF-26 FMQ** is stored in clean dry conditions with temperature 5-10°C to maintain consistent reflow and print characteristics. **Partner Paste PF-26 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.

The information given in this technical data sheet is to the best of our knowledge accurate. It is intended to be helpful but no warranty is expressed or implied regarding the accuracy of such data. It is the users responsibility to determine the suitability of his own use of the product described herein: and since conditions of use are beyond our control, we disclaim all liability with respect to the use of any material supplied by us. Nothing contained herein shall be construed as permission or as recommendations to practice any patented invention without a license from the patent owner nor as recommendation to use any product or to practise any patented invention without a license from the patent owner nor as recommendation to use any product or to practise any process in violation of any law or any government regulations.

## GLOBAL PARTNERS FOR LEAD-FREE SOLDERS

Balver Zinn  
Josef Jost GmbH & Co. KG  
Blintropfer Weg 11  
58802 Balve  
Tel: +49(0)2375-915 0  
Fax: +49(0)2375 915 114  
E-mail: cia@balverzinn.com  
Web page: www.balverzinn.com

Nihon Superior Co., Ltd.  
phone: +81(0)6-63 80 11 21  
E-mail: info@nihonsuperior.co.jp  
Web page: www.nihonsuperior.co.jp

DKL Metals Ltd., Avontoun Works  
phone: +44(0) 1506-847710  
Fax: +44(0)1506-848199  
E-mail: sales@dklmetals.co.uk  
Web page: www.dklmetals.co.uk

Florida CirTech, Inc.  
Phone: +1(970)346-8002  
Fax: +1(970)346-8331  
Web page: www.floridacirtech.com

