

Bo'ness Road, Grangemouth, FK3 9XF 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 RMA-6 FMQ

**Tin/Lead No Clean Solder Paste** 

## **Product Description**

**Partner Paste RMA-6 FMQ** is a ready to use tin/lead, no-clean solder paste 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. The post soldering residues of **Partner Paste RMA-6 FMQ** are very low and concentrated around the pad. **Partner Paste RMA-6 FMQ** is a no clean formulation therefore the non corrosive residues can stay on the board after reflow and will not interfere with in-circuit testing. **Partner Paste RMA-6 FMQ** provides a long tack life of up to 24 hours and a long stencil life of up to 8 hours. The paste flux composition allows reflow profiles with a peak temperature from 215°C up to 235°C gives a wide process window.

**Partner Paste RMA-6 FMQ** is available in tin/lead 63/37 and tin/silver/lead 62/2/36 specifications.

#### **Performance Characteristics:**

- Classified per J-STD-004 as: RoL0
- Classified per EN 61190 -1-1:RoL0
- Bright, shiny solder joints
- Long tack time up to 24 hours.
- Excellent print results with 16 and 20 mils pitch.
- Stable wetting behaviour over a wide range of profiles.
- Very long stencil life of over 8 hours.

## **Physical Properties:**

(Data given for Sn62Pb36Ag2 90,5% metal, -325+500 mesh)

Viscosity: (typical): 185 Pas
 Malcom viscosimeter @ 10 rpm and 25°C
 Initial Tackiness (typical): 129 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

Thixotropic index: 057
• Wetting Test: Pass

Tested to J-STD-004, IPC-TM-650, Method 2.4.45

## **Reliability Properties:**

- 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 1 STD 204 JPC TM 650 Metho
- Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1
- SIR:

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3 Data given for Sn62Pb36Ag2

	Reference	RMA-6
Day 1	9.0 E9	1.5 E 9
Day 4	4.9 E 9	1.0 E 9
Day 7	4.5 E 9	1.0 E 9

Electrochemical migration: Pass



## **Standard Application:**

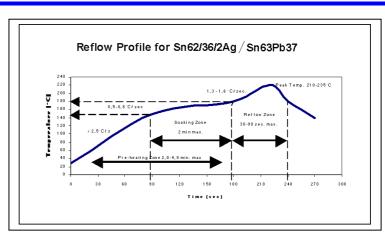
90.5-90% Metal for Stencil Printing

87% Metal for Dispensing

**Partner Paste RMA-6 FMQ** is available in Type 3 powder from 45-20 micron which is normally recommended for fine pitch applications. Type 4 powder from 20-38 micron is also available

#### **Recommended Reflow Profile:**

The recommended reflow profile for **Partner Paste RMA-6 FMQ** offers a wide process window allowing adjustment to suit component board loadings. The illustrated profile is based on a full convection reflow system using Sn62Aq2Pb36 alloy.



### **Printing Parameters:**

Squeegee Blade 80-90 durometer polyurethane or 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 RMA-6 FMQ** is a no clean formulation, the residues left on the board are non-conductive and non corrosive and do not require removal in most applications. Although it is a No Clean formulation, the 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 DEK ProFlow cassette

## Storage and shelf life:

It is recommended that **Partner Paste RMA-6 FMQ** is stored in clean dry conditions with temperature 5-10°C to maintain consistent reflow and print characteristics. **Partner Paste RMA-6 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 contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of any materials designated. Liability is expressly disclaimed for any possible patent or license infringement.

#### **GLOBAL PARTNERS FOR LEAD-FREE SOLDERS**

Balver Zinn
Josef Jost GmbH & Co. KG
Blintroper 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 Bo'ness Road, Grangemouth, FK3 9XF Tel: +44 (0)1506 847710 Fax: +44 (0)1506 848199 E-mail:sales@dklmetals.co.uk

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