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MATERIAL APPLICATION DATASHEET

Product Code

Microprint P2010 Lead Free No Clean Solder Paste

Manufactured By

Warton Metals Limited
Grove Mill Commerce Street
Haslingden Lancashire BB4 5JT
ENGLAND

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Product Description

The unique No Clean flux vehicle of Microprint P2010 offers excellent soldering of lead free solder alloys. Microprint P2010 is designed for use with a variety of substrate materials including Sn/Pb, Au/Ni and OSP treated finishes.

- **Fast Print** 20-300mm/sec.
- **No Clean** Type ROMO J-STD 004
- **Slump Free** No Solder Balling
- **Lead Free Ready**
SAC305



Slump Free - Eliminates Solder Balling

Microprint eliminates solder balling and mid-chip balling. One of the main difficulties with conventional gel systems is temperature instability or de-structuring of the gel matrix, this is evident not only in manufacturing of solder paste but during the reflowing of assemblies. If the gel matrix de-structures before sufficient solvent is volatilized, a washing effect takes place displacing solder particles between component legs or Mid-Chip.

Even though activator performance or Solderability issues can magnify this phenomenon Gel instability can be clearly demonstrated when high boiling point solvents are used to improve tack and stencil life.

The synthetic gel system adopted by Microprint offers stability at least 60°C higher than conventional gel. This yet again adds to the compatibility of Microprint with eco friendly 'lead free' applications as the problems with solder balling, with standard Sn/Pb formulations are intensified when using lead free alternatives.

VOC Free Printing Operations



Advancement in solvent package technology means that during the printing and placement process Microprint is rated as VOC FREE in accordance to the European Solvent Directive, by which a VOC is defined by vapor pressure. This definition defines a VOC as having a vapor pressure of >0.1mbar. This definition applies to all industry sectors and is aimed at minimizing emissions of VOC's.

Cleanable after Reflow?

Yes, cleaning agents can readily remove the residues of Microprint P2010. Saponifiers such as Warton Metals Ltd TOTAL CLEAN™ 600 or TOTAL CLEAN™ 612 can easily remove all residues without leaving white staining or crystals normally associated with traditional rosin based pastes, recommended conditions can vary from 25-60°C for 2-5 minutes. Solvent cleaners can also be used such as TOTAL CLEAN™ 440 or

aerosol cleaner TOTAL CLEAN™ 200. Stencil cleaning is simple with either TOTAL CLEAN™ Stencil wipes or TOTAL CLEAN 130 Stencil Cleaner.

Microprint Performance

Microprint	P2010 RoHs Compliant
Flux Type J-STD-004	ROMO
Alloys Available	SAC305
Particle Size μm	25-45
Metal Percentage	88.5%
Tack Life	72 Hrs
Viscosity 10rpm (Malcom Spiral pump method)	88.5% metal
Print Speed	20-100mm/second

Formulations to Suit All Applications

We hope the standard formulations available will suit most situations, however it is possible to modify features of Microprint to suit a particular application. If you have a requirement that Warton Metals can help you with, contact our technical department for advice on Tel: +44 (0)1706 218888.

Storage conditions

Solder Paste can be kept at room temperature.
Allow paste to achieve ambient temperature before use.

Shelf Life

Solder Paste in Pro-Flow cassettes, tubs and cartridges that are stored correctly, will offer a shelf life of 12 months. Syringes will offer a shelf life of 6 months.

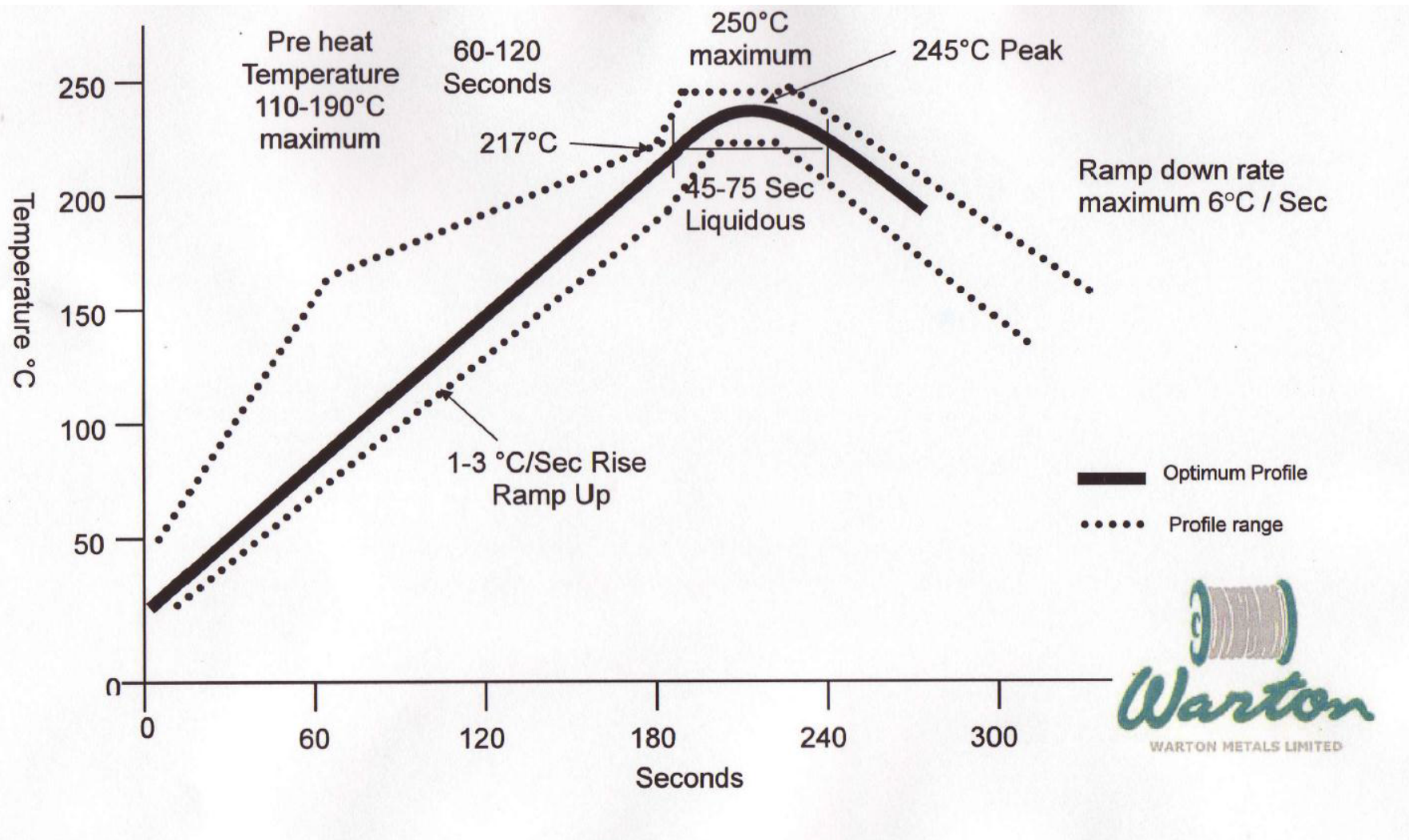
Technical Information

For further technical advice either by telephone or on-site, please do not hesitate to contact Customer Services on: + 44(0)1706 218888 or email: sales@warton-metals.co.uk.

Packaging

Microprint P2010 No Clean Solder Paste is available in 0.25Kg & 0.5Kg and 1Kg tubs, 40g and 75g syringes, 0.5Kg, 0.75Kg & 1Kg cartridges.

Microprint P2010 Lead free SAC305/TSC (SAC405) Reflow Profile



Microprint P2010 is suitable for Vapour Phase. The reflow profile for SnAgCu pastes using vapour phase reflow oven activation temperature range 140°C-170°C, peak temperature is 230°C-245°C,.

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