PRODUCT DATA SHEET Aultra 5.1

AuSn No-Clean Solder Paste

Introduction

Aultra® 5.1 is an air or nitrogen reflow, AuSn no-clean solder paste specifically formulated to accommodate the higher processing temperatures required by the Au-based alloy. Ideal for use in high-power LED module array assembly applications, this product formulation offers a wide processing window and consistent print definition, even those with ultrafine pitches. In addition to consistent printing and reflow requirements, **Aultra®** 5.1 offers superb wetting and low-voiding.



Features

- Excellent for use in high-power LED module array assembly applications
- Exceptional wetting in air reflow
- Low voiding
- Wide reflow process window
- Consistent fine-pitch print deposition
- · Superior tack strength
- No-clean residue
- · Long open life, reduced waste

AuSn Alloy Options

- 80Au20Sn
- 78Au22Sn
- 79Au21Sn
- 77Au23Sn

Particle Size

Aultra® **5.1** is available in powder sizes 2 to 7 SGS (see list below). Metal loadings vary from 89–94% according to the intended application method and particle size. Please speak to an Indium Corporation Applications Engineer to determine the best product specification for your needs.

Powder Capabilities

- Type 2 (-200/+325)
- Type 4 (-400/+635)
- Type 3 (-325/+500)
- Type 5 (-500/+635)
- Type 6 (-635)
- Type 6 SGS (5-15µm w/less than 10% overs/unders)
- Type 7 SGS (2-11µm w/less than 10% overs/unders)

Properties

Industry Standard Test Results and Classification			
Flux Classification	ROL1	Typical Solder Paste Viscosity for Sn63 T3 (Poise)	1,700
Based on the testing required by the current revision of IPC J-STD-004.		Conforms with all requirements from the current revision of IPC J-STD-005.	

All information is for reference only. Not to be used as incoming product specifications.

Packaging

Aultra® **5.1** is available in jars or syringes. Standard packaging for dispensing applications include 10 and 30cc syringes. Other packaging options are available upon request.

Storage and Handling Procedures

Refrigerated storage will prolong the shelf life of solder paste. The shelf life of $AuLTRA^{\otimes}$ 5.1 is no less than 6 months when stored at <10°C. Solder paste packaged in cartridges should be stored tip down.

Solder paste should be allowed to reach ambient working temperature prior to use. Generally, paste should be removed from refrigeration at least 2 hours before use. Actual time to reach thermal equilibrium will vary with container size. Paste temperature should be verified before use. Jars and cartridges should be labeled with date and time of opening. It is not recommended to remove worked paste from the stencil and mix it with the unused paste in the jar because this may alter the rheology of the unused paste.

Dispensing

AuLTRA® 5.1 is formulated for automated high-speed, high reliability, or single- or multi-point dispensing equipment. It also functions well in hand-held applications. Highly accurate volumes can be dispensed using either pneumatic or positive displacement devices. Optimal dispensing performance is dependent on storage conditions, equipment type, and setup.

