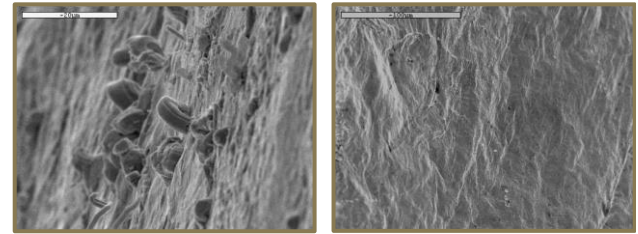


REL61 LEAD-FREE SOLDER ALLOY

FEATURES

- Reduces Tin Whisker Formation
- Enhanced Reliability Versus Low/No-Silver Alloys
- Low Cost SAC Alloy
- Improved Thermal Cycling Performance
- Improved Wetting Versus All Low/No-Silver Alloys
- For use in Lead-Free Process Only
- Complies with IPC J-STD-006



SAC305

@ 3100 hours

REL61

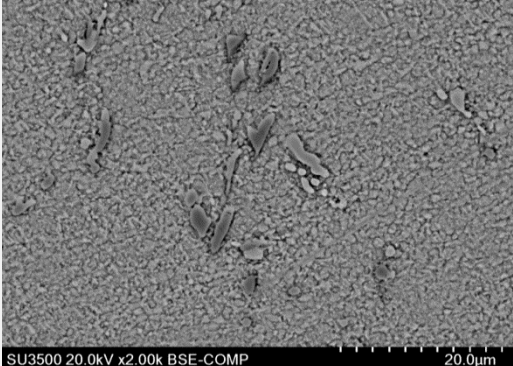
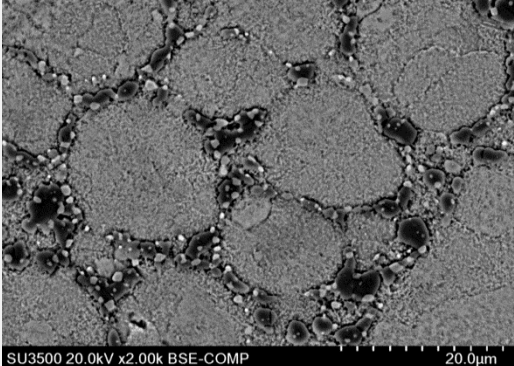
DESCRIPTION

AIM's REL61™ is comprised of tin, bismuth, silver, copper and trace amounts of elemental grain structure refiners. REL61 has proven to reduce tin whisker formation as well as outperforming low/no-silver alloys in thermal shock, vibration and drop shock resistance. REL61 provides the electronics assembly marketplace a low-cost alternative to SAC alloys that has reliability and performance characteristics equal to SAC305 and greater than other low/no-silver solder alloys. REL61 also has a lower melting temperature than all SAC and silver-free alloys and exhibits superior spread, flow and wetting in production testing.

AVAILABILITY

REL61 is available in bar (1.1 kg / 2.5 lb), solid feeder wire (diameters of 3.175 mm / .125"), and no clean solder paste (M8 T4 500 gr jar). Other product options are available upon special request.

PHYSICAL PROPERTIES

Parameter	Results	
	REL61	SAC305
Melting Point	208-215°C with a range of 14 degrees undercooling	217-220°C with a range of 20 degrees undercooling
Wetting Time	0.9/sec	0.9/sec
Wetting Force	4.4/mN	4.4/mN
Hardness	26/HV10	14/HV10
Thermal Conductivity	82 W/ m· K	58 W/ m· K
Tensile Strength	80 Mpa	34 Mpa
Tensile Elongation	24%	47%
Spread Factor	70	70
Kinetics of IMC Growth (150°C @ 800hrs)	14 μm	17 μm
Microstructure Analysis (aged) 150° for 24 hours		

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TECHNICAL DATA SHEET



HANDLING & STORAGE

Solid wire and bar solder products have a shelf life of 7 years under proper storage conditions. For other product categories, refer to those product specific TDS's. Consult the SDS for specific handling procedures.

SAFETY

Use with adequate ventilation and proper personal protective equipment. Refer to the accompanying Safety Data Sheet for any specific emergency information. Do not dispose of any hazardous materials in non-approved containers.

CLEANING

Refer to data sheets provided by the flux manufacturer.

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