

Analysis of Tin-Based Lead-Free Solder by LECO GDS500A

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RESULTS OF ANALYSIS FOR MBH 74XCA5 MATERIAL: TIN-BASED LEAD-FREE SOLDER

ELEMENT	RUN#1	RUN#2	RUN#3	RUN#4	RUN#5	AVERAGE	CERT.	% REL	STDEV	RSD
Ag %	4.00	3.98	3.95	3.94	3.95	3.98	4.00	0.51	0.024	0.61
Cu %	1.13	1.11	1.10	1.12	1.09	1.11	1.09	1.77	0.015	1.37
Pb %	0.013	0.012	0.012	0.012	0.012	0.012	0.012	2.30	0.001	4.64
Bi %	0.020	0.019	0.017	0.018	0.017	0.019	0.021	9.66	0.002	9.46
Sb %	0.132	0.132	0.135	0.129	0.138	0.133	0.133	0.13	0.002	1.37
Ni %	0.017	0.015	0.016	0.017	0.016	0.016	0.015	7.71	0.001	6.57
As %	0.033	0.032	0.036	0.037	0.028	0.034	0.035	3.49	0.002	6.11
In %	0.010	0.013	0.012	0.010	0.011	0.012	0.011	5.41	0.001	11.6
P %	0.011	0.012	0.012	0.011	0.010	0.012	0.011	7.72	0.0003	2.76
Sn %	94.63	94.67	94.71	94.71	94.73	94.67	—	—	—	—

Analysis of Tin-Based Lead-Free Solder using the LECO GDS500A. Five individual analyses were performed as required per "recommended method of use" clause on the CRM certificate of analysis. The sample was prepared by wet grinding with 320-grit silicon carbide disk using a LECO GPX-300.

Parameters

Grimm-Style 4 mm lamp
Voltage: 700 VDC
Current: 25 mA

For questions on this analysis e-mail us at:
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For a complete listing of snapshots and performance notes visit us on the web at www.leco.com in the Spectroscopy section of the Applications Library.

