

SEMI G75.5-0698 (Reapproved 0615) TEST METHOD FOR MEASUREMENT OF WEIGHT LOSS OF LEADFRAME TAPE

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1 Summary of Method

1.1 Specimens are weighed before and after exposure to temperatures comparable to those used in the assembly and packaging of microelectronics devices. The weight loss is calculated as a percentage change in the weight of the sample.

2 Equipment

- 2.1 Direct reading balance calibrated to 0.1 mg accuracy.
- 2.2 Recirculating air oven capable of $300 \pm 2^\circ\text{C}$ accuracy.

3 Sampling

3.1 The sampling is one sample per one lot. The vendor must report the definition of lot, if customer requires it.

4 Preparation of Specimens

- 4.1 Allow the samples to stabilize at $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%$ RH for 16 hours minimum. This may be carried out in a climate controlled room or in a thermohygrostat.
- 4.2 Cut specimens out of the samples such that the minimum weight of each specimen is 1 gram.

5 Test Conditions

- 5.1 *Test Condition 1* — 100°C for 60 ± 1 minute.
- 5.2 *Test Condition 2* — 200°C for 60 ± 1 minute.
- 5.3 *Test Condition 3* — 300°C for 10 ± 0.5 minutes.

NOTE 1: Alternate temperature may be used by agreement between vendor and customer.

6 Equipment Setup and Calibration

6.1 Refer to the thermohygrostat manufacturer's manual for setup and calibration procedures.

7 Procedure

- 7.1 In order to ease the handling of the specimens, place each into a weighed cup or tray which has tared their weight (W_1).
- 7.2 Place the specimens in the oven at the specified test conditions.
- 7.3 Remove the specimens from the oven and store at $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%$ RH for 16 hours minimum.
- 7.4 Reweigh the specimens (W_2).
- 7.5 *Calculation*
 - 7.5.1 The Weight Loss, A (%), is determined from the following equation:

$$A(\%) = \frac{(W_1 - W_2) \times 100}{W_1}$$

8 Related Documents

8.1 JIS Standard¹

JIS K 0067 — Testing Methods for Loss and Residue of Chemical Products

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