

SEMI G75.3-0698 (Reapproved 0615) TEST METHOD FOR MEASUREMENT OF THE PEEL STRENGTH OF PROTECTIVE FILM ON LEADFRAME TAPE

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1 Summary of Method

1.1 A tensile tester is used to peel the film away from the adhesive (see Figure 1) and directly measure the peel strength with a calibrated load cell.

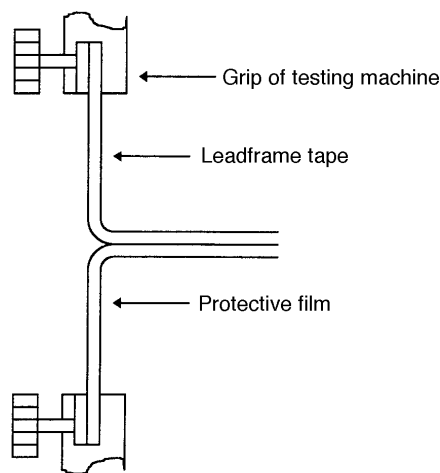


Figure 1
Attaching of Test Piece for T-Type Peel Test

2 Equipment

2.1 Tensile tester with appropriate load cell, clamping chucks, and a chart recorder.

2.1.1 Tensile tester shall keep constant the traveling speed of clamping chucks, of which the traveling distance can be read to the nearest 1 mm, and shall simultaneously record the load imposed on the sample. It shall measure and record the imposed load with $\pm 1\%$ on a chart recorder.

3 Test Condition

3.1 Peel strength testing shall be carried out at the following ambient conditions:

3.1.1 Temperature — $23 \pm 5^\circ\text{C}$.

3.1.2 Humidity — $50 \pm 5\%$ RH.

4 Sampling

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

4.2 The width of the tape tested shall be 15 ± 0.2 mm.

5 Equipment Calibration and Setup

- 5.1 Refer to the tensile tester manufacturer's equipment manual for setup and calibration.
- 5.2 The sample shall be attached and peeled for T-type peel test shown in Figure 1.
- 5.3 Both ends of a test piece shall be attached to the grips of the testing machine specified in § 2.1.
- 5.4 The pulling rate shall be set to 300 mm/minute.
- 5.5 The pulling distance shall be 125 mm minimum from the start of peeling.
- 5.6 The peel strength shall be recorded in grams.

6 Measurements

- 6.1 As shown in Figure 2, draw the optimum straight line which is parallel to the abscissa for peeling length, that passes through the peeling curve, and find the peeling load after eliminating initial 25 mm of peeling length.

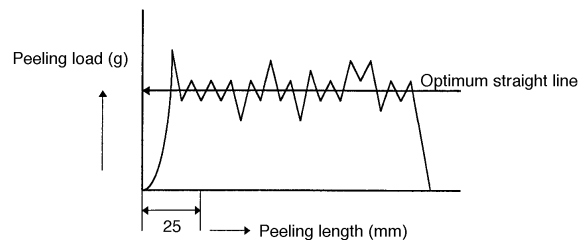


Figure 2
Obtaining Peeling Load by the Optimum Straight Line Method

7 Related Documents

7.1 JIS Standard¹

JIS K 6854 — Testing Methods for Peel Strength of Adhesives

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