



Lab Master[®] Release and Adhesion Tester

Model 80–91

The Lab Master® Release and Adhesion testing system measures the peeling strength of pressure sensitive adhesives and release strength of labels. The unit meets a variety of international standards such as ASTM, FINAT, TLMI and other standards. Methods are user-defined, saved and selected through a PC- based touch screen display operating under Windows® based application software. The software offers the ability to create user-defined test set-ups, individual test speed selection, user-definable default areas for analysis, and enhanced calibration. Test data visually represents the characteristics of the peel.

The Lab Master® unit has three load cell options. Force ranges include 0-1.1 lb. (500 gram), 0-10 lb. (5000 gram) and 0-25 lb. (11,350 gram). Test speeds are infinitely variable from 2 to 1500 inches (5.0-3,810 centimeters) per minute. The Lab Master® Release and Adhesion tester accommodates samples up to 2 inches (5 cm) wide with a maximum peeling length of 12 inches (30 cm).

Features:

- Precision direct drive system (no chain).
By use of the servo drive system and lead screw there is no lag time or ramp up speed at the start of the test to maximum speed
- Simple calibration set-up allows hanging calibration weights directly from the load cell- no pulleys are necessary
- Low range load cell of 1.10 lb. (500 gram) and low noise signal processing allows precision low force release testing below 20 grams force
- PC-based control with convenient touch-screen operation
- Solid instrument base design eliminates internal drive vibration providing increased sensitivity at low force measurements
- Ability to save and recall peel data for advanced analysis
- Twist lock angle system with degree markers, allowing test angles of 90°, 135°, and 180°

Applications

Tape, Pressure-sensitive labels, Release Paper, Blister Packs, Closures, Medical Products, Seals, Security Labels.

Standards

Meets ASTM D 3330, TLMI L-IA1 and L-IA2, PSTC-1, 3, and 4, and FINAT FTM 1, 2, and 3

Technical Specification:

Model:	80-91-00-0001
Load cell ranges:	0-500 g (1.1 lb) 0-4,540 g (0-10 lb) 0-11,339 g (0-25 lb)
Tests samples:	Up to 5 cm (2 in.) wide with maximum peeling length of 30.48 cm (12 in.)
Variable speeds:	From 5-4064 cm/min (2-1600 in./min.)
Weight:	40 kg (88 lb)
Dimensions (WxDxH):	57.5 x 8 x 21.75 in. (1461 x 203 x 553 mm)
Electrical	Auto-ranging power supply: 100-120 V nominal $\pm 10\%$, 50/60 Hz 220-240 V nominal -5% $+10\%$, 50/60 Hz

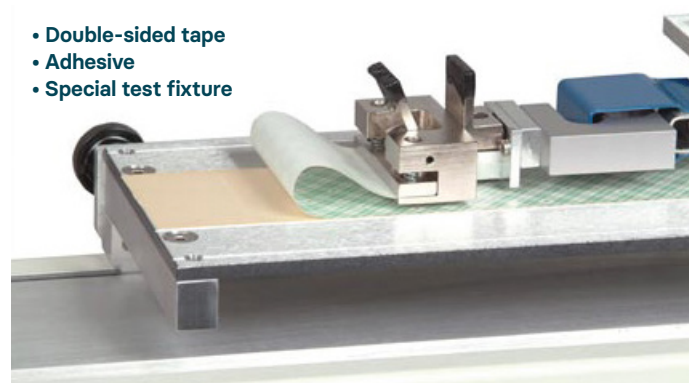
Test Methods for Adhesive Tape, Adhesives, Tape, Peeling Tests and Adhesion Tests

PSTC-101	International Standard for Peel Adhesion of Pressure Sensitive Tape
ASTM D 3330	Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
TLMI L-IA1	180° Peel Adhesion – Stock
TLMI L-IA2	180° Peel Adhesion – Release Liner
FINAT1	Peel adhesion 180°
FINAT2	Peel adhesion 90°
AFERA 5001	Self Adhesive Tapes – Measurement of Peel Adhesion from Stainless Steel or from its own Backing (EN 1939: 2003)

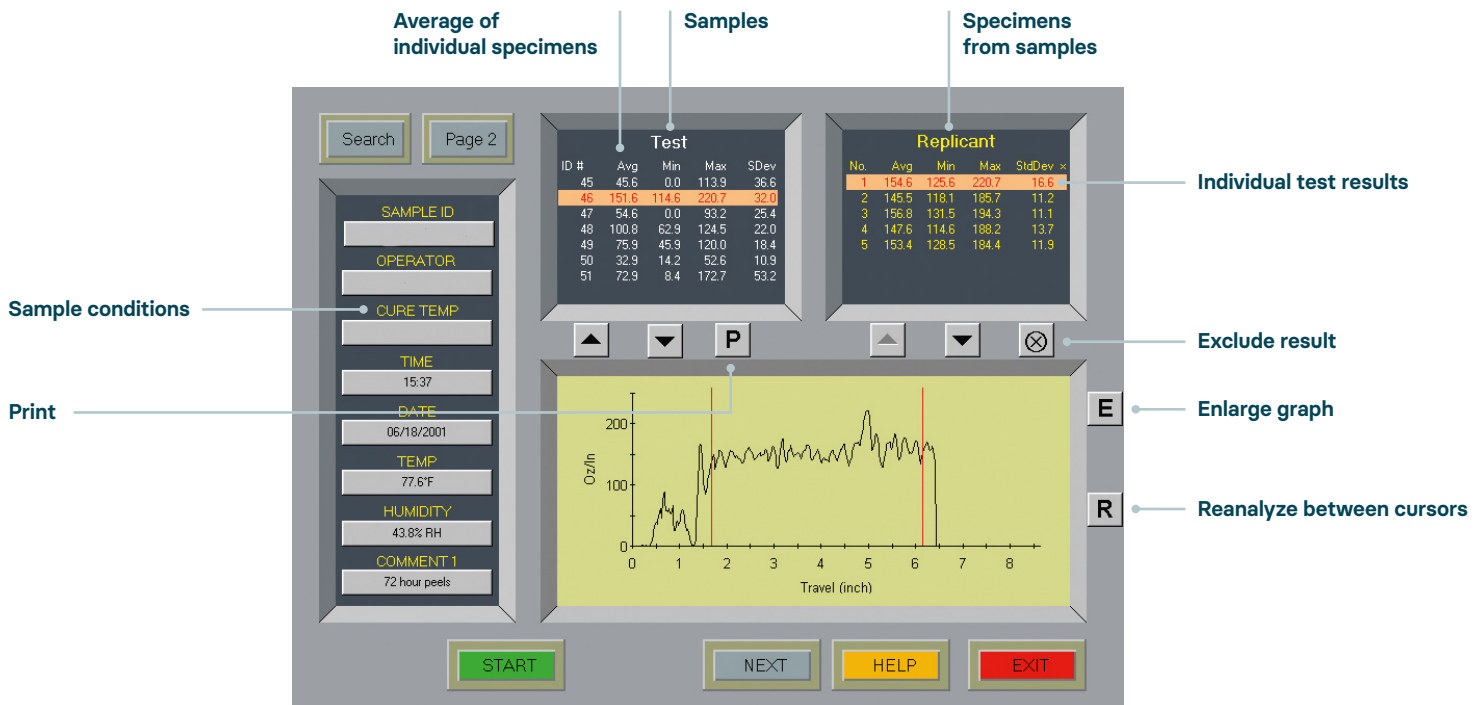
Test Bed & Specimen Clamp:



Select peel angle to simulate application: 90°, 135°, and 180°



Sample clamp measuring 180° degree high speed release test.



Software:

- Transducer reading is processed with auto-range software to produce test results
- Hundreds of readings are taken during a typical test to provide force/position curves
- Area analysis allows the operator to select a portion of the curve for further analysis
- Minimum, maximum and average data points are displayed

Disclaimer

The information contained in this document is liable to modification from time to time in the light of experience and our policy of continuous product development. Check the Industrial Physics website for the latest version.

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