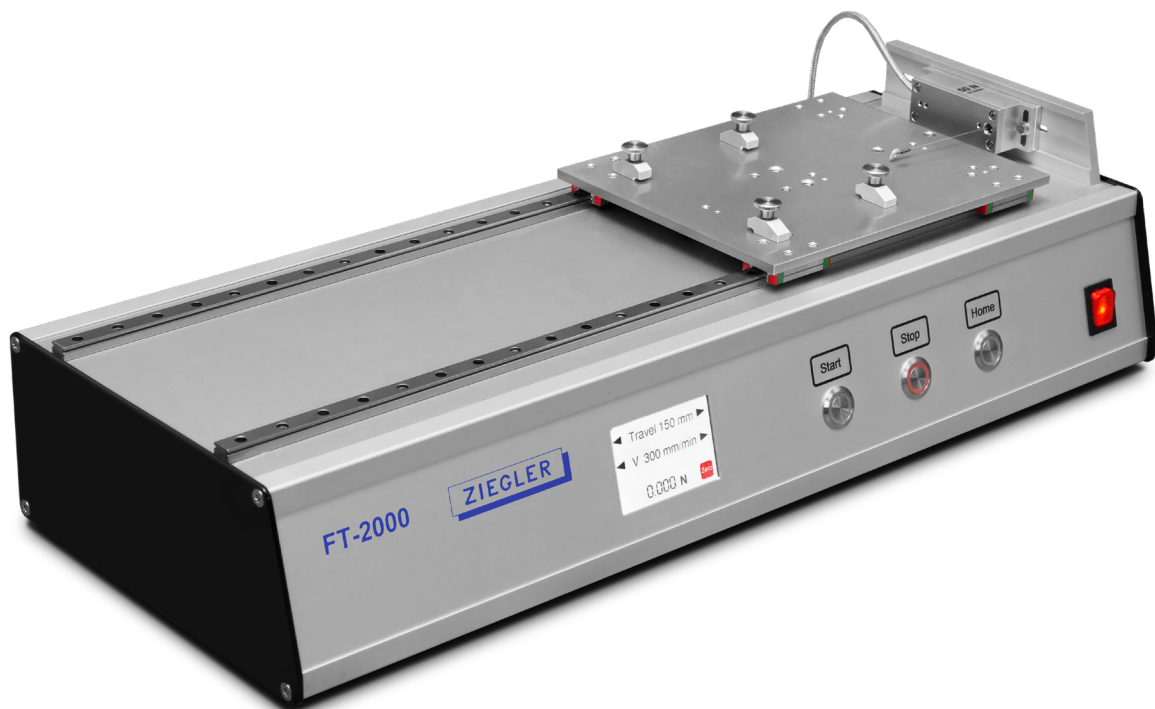


Data sheet

FT-2000

Adhesive peel tester according to
the testing standards of FINAT and Afera



Copyright © 2024, Josef Ziegler
Ziegler-Industrie-Elektronik
Guddenstr. 64
80807 Munich, Germany
info@ziegler-tec.de

Product description

The adhesive strength tester FT-2000 is tailored to the requirements of manufacturers, processors and users of adhesive composite materials and its specifications correspond to the FINAT* and AFERA** testing standards. The sample table is driven using an electronically controlled encoder position control, which precisely maintains the speed. The determined average tensile force is shown on the display of the measuring device. 50/300/1000 mm/min and pulling speeds from 10 mm/min to 10 m/min can be set. The standard pulling speed is 300 mm/min.

The standard travel distance is 150 mm. The following travel distances can be selected: 50, 100, 150, 200, 250, 300, 360 mm. A motor-operated 90° trigger is also available as an option.

Supported FINAT testing methods: No. 1, 2, 3, 9, 10 and 11.

* Fédération internationale des fabricants et transformateurs d'adhésifs et thermocollants sur papiers et autres supports

** Afera, the European Association for the Self Adhesive Tape Industry



Working principle

The device is designed as a horizontal tensile testing machine. The sample table is equipped as a movable clamp with a constant feed, while the fixed clamp is coupled to the measuring cell.

This can be used to measure properties such as release force and peel strength, for example at a peel angle of 180° or 90° (option).

Technical data

Force measurement

The adhesive peel tester is equipped with two highly sensitive strain gauge load cells in the measuring ranges of 5 and 50 N.

Drive

The sample table is driven using an electronically controlled encoder position control, which precisely maintains the speed.

The standard pulling speed is 300 mm/min, 50/300/1000 and 10 mm/min to 10 m/min can be selected on the front via the touchscreen.

Force display

The determined average tensile force is shown on the display of the measuring device. Reading accuracy:

Measuring range 5 N, 0.001 N

Measuring range 50 N, 0.01 N

Accuracy

Force measurement: < 1% of the displayed value +/- 2 digits.

Speed: < 2% of selected speed.

Connection, dimensions and weight

Voltage:	100 - 240V/ 50 - 60 Hz/150VA
Dimensions:	Length: 670 mm Width: 290 mm Height: 165 mm
Weight:	ca. 10.5 kg
Connection:	USB port

Options and attachments

Integrated

- The standard pulling speed is 300 mm/min. 50/300/1000 mm/min and pulling speeds from 10 mm/min to 10 m/min can be set.
- The standard travel distance is 150 mm. The following travel paths can be selected: 50, 100, 150, 200, 250, 300, 360 mm.
- 2-channel version
5 N and 50 N load cell
- Sample plate: Float glass
200 x 100 x 2 mm
- Sample plate: Stainless steel
VA 200 x 100 x 2 mm
- FTSOFT software for data acquisition, graphic display, evaluation, storage and printing, individual measurement protocols and export into software Microsoft® Excel®.

For extra charge

- ZIEGLER hand roller for sample preparation according to FINAT
- Quick-Stick plate for Loop-Tack testing
- 90°-pull off equipment
- Foil holders
- Paper clamp
- Options and accessories for customization

Testing methods

The following tests of the properties of pressure-sensitive adhesives and adhesive composite materials are supported:

FINAT FTM 1

Measurement of peel strength at a peel angle of 180° with a pulling speed of 300 mm/min

FINAT FTM 2

(Option gegen Aufpreis)

Measurement of peel strength at a peel angle of 90° with a pulling speed of 300 mm/min

FINAT FTM 3

Measurement of the separation force at a pull-off angle of 180° with a pulling speed of 300 mm/min

FINAT FTM 9

(Option for extra charge)

"Quick-Stick" plate for Loop-Tack tests

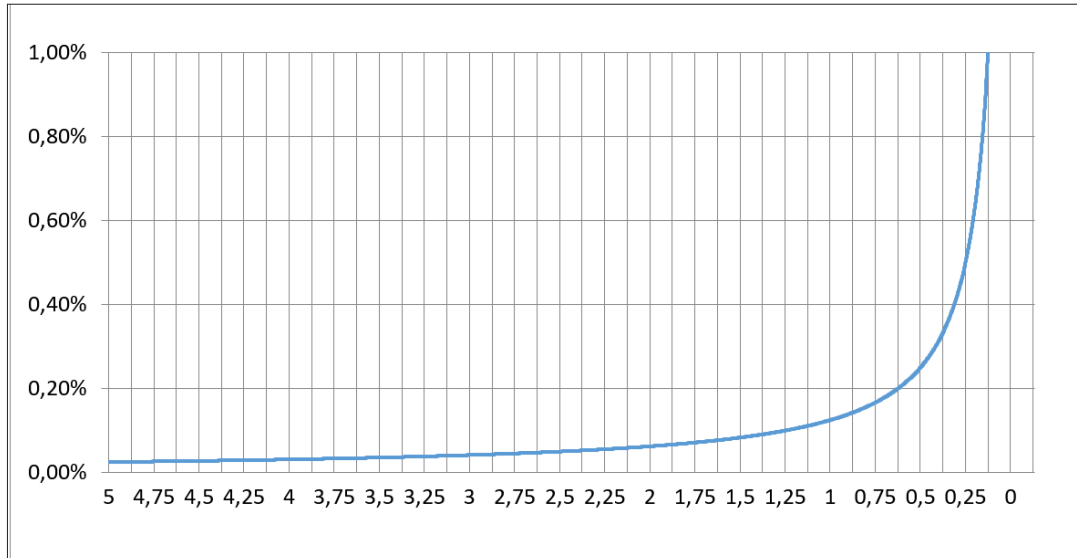
FINAT FTM 10 und 11

Measurement of the release force and residual adhesive strength of silicone-coated self-adhesive materials

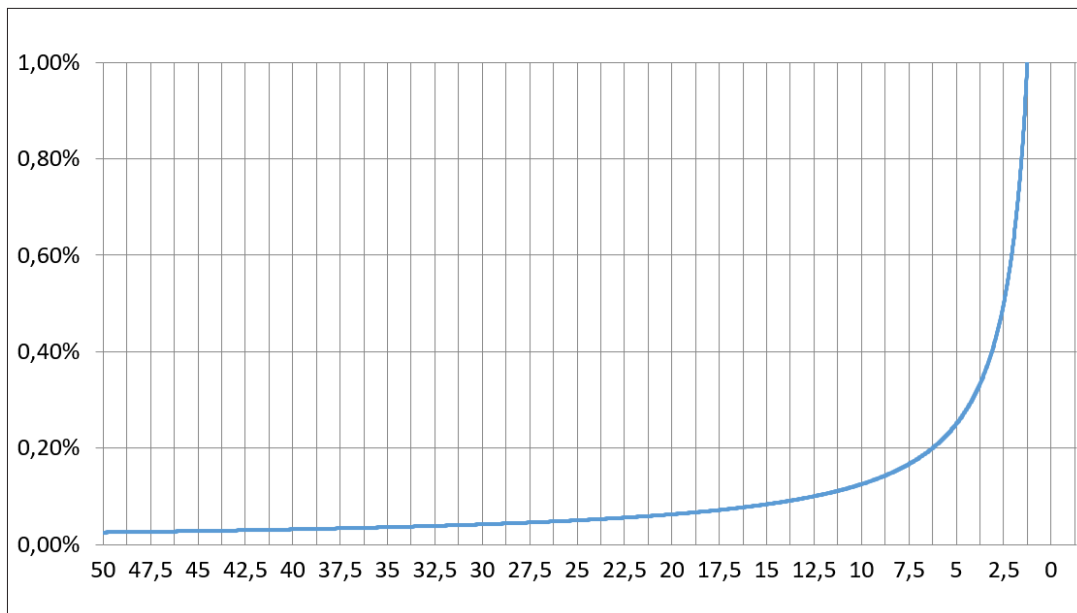
Testable materials

- Rubbing foils
- Adhesive films/foils/tapes
- Adhesive tapes with release material
- Adhesives
- Labels
- Self-adhesive films/foils/tapes
- Security stickers
- Sealing material
- Packaging tapes made of paper, plastic, textile and metal as well as materials with related properties.

Accuracy FT-2000



Usage of 5 N load cell = 0.25 N–5 N with accuracy of +/- 1 %, resolution of individual measured value = 0.00125 N



Usage of 50 N load cell = 2.5 N–50 N with accuracy of +/- 1 %, resolution of individual measured value = 0.0125 N

Your advantages

- Horizontal working method – no influence from the test specimen's own weight
- Uncomplicated operation of the device
- Not a universal device. The test device is specially designed for adhesive strength measurements of the various standards.
- No complex conversion for different measuring methods
- No influence on the measuring circuit due to modifications such as deflection rollers etc.
- 2 measuring cells, 5N and 50N, for increased accuracy
- Speeds from 10 – 1000 mm/min (increments of 10mm/min)
- Zero point adjustment by pressing a button
- Space-saving dimensions of 40cm x 20 cm
- Mobility - practical for changing workplaces or with customers
- Weight of the test device 10.5 kg
- Waterproof transport case
- The test device can also be operated without software
- Lowest energy costs – idle 1.5 watts, maximum load 20 watts
- Long lifetime
- Solid metal construction, no plastic parts

Software FTSOFT

- Intuitive use of the software
- No training period
- Software is compatible with any PC or notebook (32- or 64-bit version of Windows® 10-11).

Warranty

The manufacturer's warranty is 2 years.

Manufacturer and copyright

Copyright © 2024

ZIEGLER Industrie-Elektronik

Josef Ziegler

Guddenstr. 64

80807 Munich, Germany

Phone: +49 89 3131760

FAX: +49 89 3130621

Email: info@ziegler-tec.de

Internet: www.ziegler-tec.de

Publication date: 03.2024

Technical specifications and equipment are preliminary and correspond to the knowledge as of the printing or publication date. They can be changed at any time without notice.