

Data sheet

FTM 180

Vertical tensile tester
with up to 9
individually movable
force transducers

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easy to use – precise measurements –
multiple independent or simultaneous measurements

Product description

The ZIEGLER FTM 180 adhesive peel tester is a multiple tensile tester. The test device has up to 9 individually vertically movable force transducers and a work table. The work table can be moved manually so that either pull-off tests or loop tack measurements can be carried out. Due to the special arrangement on the tensile tester, the samples can be pulled at a vertical angle of 180° and at speeds of 300 mm/min and 10 m/min.

Principle of operation

The adhesive peel tester works according to the principle of a vertical tensile testing machine. The device has two ways of operation:

Standalone operation

Minimum, average and maximum values at a given speed.

Extended operation

Connection to a PC with Windows® system: measured values are recorded, evaluated, saved, printed, exported and further processed.

Areas of application

The FTM 180 test device is used for...

- Manufacturing adhesives, composite materials, self-adhesive materials and release agents
- Processing and finishing these materials
- Using the resulting products

Adhesive peel testing devices are used in the development and research of material properties, the formulation and design of products.

They serve as proof of quality for the...

- Production monitoring and quality control
- Sustainability certificates for storage.
- Outgoing goods inspection by the manufacturer.
- Incoming goods inspection by the refiner.
- Outgoing goods inspection by the refiner.
- Incoming goods inspection by the user.

Measurements are carried out...

- For quality control
- In the event of complaints
- For production control
- For control over a specified period of time or under specified conditions
- For control of materials after storage before production
- Testing for chemical, UV, heat or cold effects

Components

Mechanical components

- Precision drives that maintain the speeds precisely.
- Spindle drive that converts the motorized rotary movement into the linear feed movement.

Electronic components

Electronics for...

- Control
- Evaluation
- Regulation and control of the device functions
- Touch screen for messages, speed setting and evaluation of actual value, minimum value, maximum value and average value in cN/cm with 25 mm sample width

Electrical push buttons for...

- **START button**
Start measurement
- **STOP button**
Interrupt measurement
- **HOME button**
Returns the load cells to the starting position
- **Red emergency stop switch**
For interrupting the feed units

Plug connections for...

- Power supply for the test device
- Measurement cell connections
- USB connection to a PC
- Switching unit plug

Optional

Extensions and modifications are possible, for example:

- Different measuring ranges
- Surface-heated plates
- Program adjustments
- Individual adjustment to customer requirements
- Expansion to up to 9 measuring stations
- Test plates can be supplied according to any requirement, e.g. made of glass, stainless steel, etc.

Measurements are being carried out...

- for quality control
- in the event of complaints
- for production control
- for control over a specified period of time or under specified conditions
- for control of materials after storage before production
- for testing of chemical, UV, heat or cold effects

Scope of delivery

- Adhesive peel tester FTM 180
- 3 load cells 10 N
- Power cable
- USB cable
- Manual
- Special test plate for keyway guides
- Various clamps for sample attachment
- Software compatible with Windows® 10-11

Supported test methods (selection)

FINAT FTM 1 – Adhesive strength test, pull-off at a 180° angle at 300 mm/min

In accordance with FINAT specifications, this measuring method measures the release force required to remove a self-adhesive material that has been glued to a standard test plate under previously defined conditions at a peeling angle of 180° and a speed of 300 mm/min.

FINAT FTM 3 – Separation force with slow pull

In accordance with FINAT specifications, this measuring method measures the separation force required to separate a material with a self-adhesive layer from its release paper (or vice versa) at a 180° angle and a peeling speed of 300 mm/min.

FINAT FTM 9 – Testing of the "Loop-Tack" initial adhesion

Initial adhesion or initial adhesive strength is the force that an adhesive tape exerts when it is first stuck on. In addition, it can be measured how quickly a bond is formed when the adhesive first comes into contact with the surface to be bonded.

ZIEGLER FTM 180 supports many other test methods...

Technical data

General:

Operating voltage:	A.C. 100–240 V / 50–60 Hz
Max. power consumption:	< 100 VA
Fuse:	2x fine fuse 5x20 mm, slow-blow 4 AM

Dimensions:

Height:	980 mm
Depth:	720 mm
Width:	620 mm
Weight:	45 kg

Warranty

The device has a manufacturer's guarantee of 2 years.

Manufacturer and copyright

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