No. 2000

No. 2000

Horizontal tensile tester (desktop type)

This tester holds both sides of the test specimen and pulls it at a constant speed, to determine the maximum load up to failure and the elongation at failure, and the work required for failure. When a specimen is inserted into this constant-rate-elongation machine, it is secured by two pneumatic clamps, then the test starts automatically. The load cell connected to the fixed side clamp detects load, to calculate, display and outputs on the printer the tensile strength, elongation, breaking length, tensile energy and tensile stiffness.

Tensile loading capacity: 500 N (50 kgf)
(optional: 100 N, 1000 N)
Span: 80 to 200 mm, regulating increment of 1 mm,
standard: 180 mm
Tension stroke: 70 (span 200 mm) to 190 mm (span 80 mm)
Tension speed: 2 to 100 mm/min
Specimen width: 15 mm (optional: 25, 50 mm)
Specimen clamp: pneumatic type; The inserted specimen is clamped automatically.
Special clamp for wet paper (optional)
Recorder (optional): can be connected
Measurement items:

1. Setting items: test name, specimen No., machine No., basis weight, specimen orientation, specimen width, span, tensioning speed
2. Measuring items: tensile strength (kNm), elongation rate (%), (optional elongation (mm))
3. Calculation items: average, maximum, minimum, standard deviation, breaking length, elongation rate, tensile energy absorption and tensile energy absorption index, tensile stiffness
4. Measurement of tensile elongation (optional) After the measurement result is outputted, the elongation is calculated by inputting the load.

Referential standards: JIS P-8113-98, T-494om-01,
ISO 1924/2
Power source: 100/110 VAC 50/60 Hz 2A
Air source: 0.5 MPa
Outer dimensions: 800×450×300 mm
Instrument weight: 48 kg

No. 2000-W

No. 2000-W

Wet tensile strength tester

A specially designed wetting water supply device is mounted on the standard horizontal tensile tester. Dropping water from a dispenser, you can easily measure the wet tensile strength with this machine. Immediately after water in the dispenser is dropped on the specimen, the tensile test is performed. The amount of wetting water and the timing of test start after water dropping can be set as desired.
For test with a specimen entirely immersed, you can use the manual clamping type instead of the automatic type. Select either one suitable for your purpose.

No. 2001

Schopper tensile strength tester

A constant-speed loading type tensile tester. This machine applies a tensile load onto the specimen at a constant speed, to measure the maximum load and elongation at breaking.
One end of the specimen is fixed with the clamp connected to the pendulum, and the other end is secured by the clamp that moves downward at a constant speed.
The test specimen is tensioned at a constant speed, while the load increases. When the specimen breaks, the pendulum stops, and the machine indicates the maximum load and elongation at breaking. The tensile strength is expressed in Newtons, and the elongation in millimeters or ratio (percentage) to the specimen length (180mm). Since the machine is provided with a stepless speed change motor, the tension speed can be changed as desired. The lower clamp is lowered and lifted by the push button. So you can easily perform tension, stop and resetting. When the lower clamp reaches the lowest point, the machine stops automatically to ensure safety.
(Features)

1. The load scale can be corrected by the correction weight.
2. The specimen breaking time of 20±5 seconds can be regulated by the variable speed motor.
3. With the dial type elongation gauge, it is easy to read the result down to 0.1 mm.
4. The resetting is rapidly done by a specific motor. About 8 seconds for full scale resetting.
5. Easy to operate. Tension, stop and resetting are done with the push button.

Tensile strength: load scale: 10 N / 30 N
30 N / 150 N
50 N / 300 N
100 N / 300 N
100 N / 500 N
Elongation: scale 0 to 27 mm (0.1 mm increment)
0 to 15 % (0.1 % increment)
Span: 50, 100, 150, 180 mm
Clamp: width 15 mm (standard), 25 mm, 50 mm (option)
Tension speed: 25 to 250 mm/min.
Referential standards: JIS P-8113-98, TAPPI T-404cm-92, ISO 1924/1
Power source: single-phase 100/110 VAC 50/60 Hz 3 A
Outer dimensions: 850×580×1300 mm
Instrument weight: 123 kg

No. 2001

No. 2003

Schopper heavy tensile tester

This machine determines the tensile strength of relatively stronger products such as boards and liners. It has the same configuration as No.2001 tensile tester. Easy to operate. The high precision is maintained over long years of use.

Tensile strength: load scale 300 N / 1000 N
500 N / 1000 N
Elongation: elongation scale 0 to 27 mm (0.1 mm increment)
0 to 15 % (0.1 % increment)
Span: 50, 100, 150, 180 mm
Clamp: width 15 mm (standard), 25 mm, 50 mm (optional)
Tension speed: 25 to 250 mm/min.
Referential standards: JIS P-8113-98, TAPPI T-404cm-92, ISO 1924/1
Power source: single-phase 100/110 VAC 50/60 Hz 3 A
Outer dimensions: 1040×560×1550 mm
Instrument weight: 148 kg

No. 2003

No. 2005

No. 2005

Finch wet tensile test instrument

This is a jig for measuring the tensile strength of paper and paperboard immersed in water.

Referential standard: TAPPI T456om-03
Outer dimensions: 55×17×145 mm
Instrument weight: 150 g

No. 2006

No. 2006

Finch edge-tear resistance tester

The resistance of paper against tearing is expressed by two properties: internal resistance and edge-tearing resistance. The former is determined by the Elmendorf tearing tester. In this type of test, the specimen is torn from a slit made in advance. The latter is the Finch edge-tearing test that tears the specimen from the edge. Practically, this property is more important than the internal resistance. A test is run as follows. A stirrup-shaped piece is installed on the lower chuck of the tester; the specimen 15 to 25.4 mm wide and 254 mm long is made to pass below the V-shape horizontal beam of the piece; both ends of the specimen are overlapped and secured with the upper chuck. Loads are applied at a such rate that the specimen is torn in 5 to 15 seconds. The maximum load at rupture is expressed in N as edge-tear resistance.

Paper thickness: 0.76 mm or less, horizontal beam 1.27±0.05 mm thick
0.76 mm or more, horizontal beam 1.27±0.05 mm thick
Referential standards: JIS Z-1523, TAPPI T470om-89
Outer dimensions: 7×45×100 mm
Instrument weight: 50 g