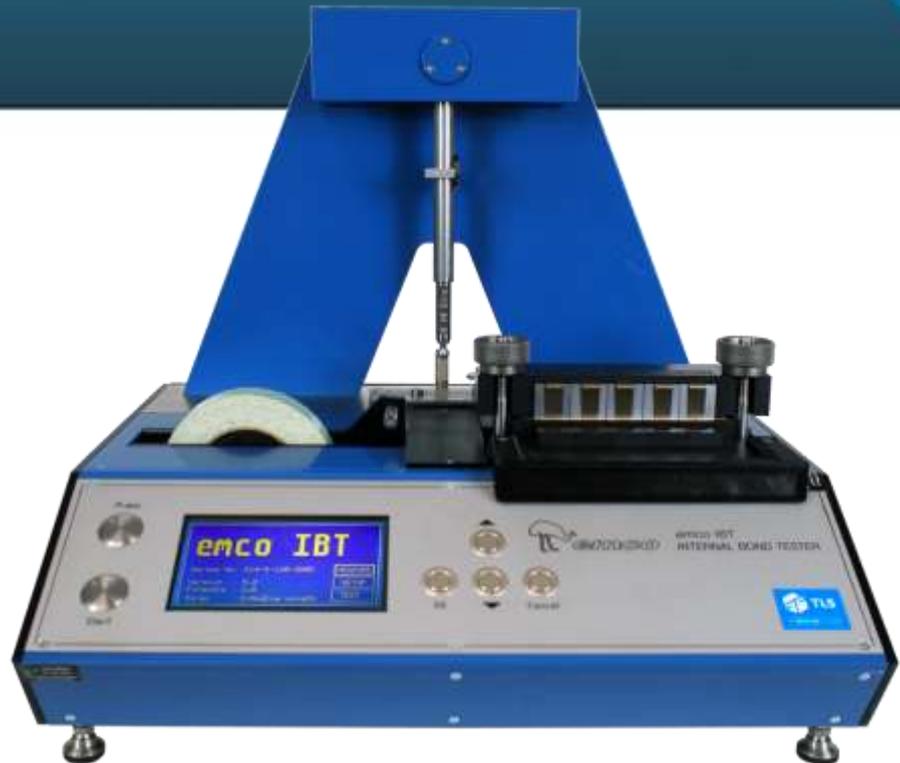




INTERNAL BOND TESTER IBT model



Method to determine the resistance of internal adhesion between paper and cardboard layers by dynamic delamination

INTERNAL BOND TESTER IBT model

APPLICABLE STANDARDS:

TAPPI T569 om-09 – Method Scott Bond - ISO 16260 - DIN 51 222

TEST DESCRIPTION

The New Internal Bond Tester IBT uses the dynamic measurement principle to determine the internal adhesion resistance between layers. The great importance of sample preparation and environmental conditions has been taken into account for the manufacture of the equipment. .

- **Sample preparation integrated for 5 samples simultaneous (bonding, pressing, cutting)**
- **Processor controlled clamping pressure and press time**
- **4 measuring ranges approx. 52,5 J/m² to 2100 J/m² (Scott bond low and high included)**
- **Statistic function (AVG – average value, DEV – standard deviation)**
- **Selective indication of measurements in: J/m², ft-lb/sq.in. or mJ/sq.in.**
- **Monitoring of the climatic conditions**
- **Output of measuring data and parameters to PC**
- **Self-calibrating**
- **Automatic pendulum test according to DIN 51 222**
- **Digital reading**
- **Includes Cable and Test Software**

CONSTRUCTION AND OPERATION

Method for determining the resistance of internal adhesion between paper and cardboard layers by dynamic delamination in accordance with International Standard TAPPI T569 om-09 - Scott Bond Method. A sandwich sample is prepared with double-sided adhesive tape, the sample to be tested and again the double-sided adhesive tape. This set is pressed between an aluminum angle and a metal sample holder. The effective area is 25.4 x 25.4 mm (1 "x 1") and the sample is prepared at an adjustable pressure and set time.

In the process of a test, the specimen holder is automatically fixed and the electromechanical pendulum is released. The pendulum, with a certain amount of energy, impacts the upper part of the angle, causing delamination of the sample. The energy absorbed by the pendulum is correlated with the internal bonding force of the sample.

The measurement of the energy absorbed by the rupture of the sample will be carried out by two methods:

Energy Power - traditional method

This method measures the deflection of the pendulum, at which the pendulum reaches after impact. The difference from the maximum pendulum deflection in an empty path without sample (reference measurement) is the amount of energy absorbed to break the sample.

Kinetic energy - dynamic method

This method measures the speed of the pendulum before and after impact. Rate change (decrease) is the amount of energy absorbed after breaking the sample.

TECHNICAL CHARACTERISTICS

- 4 measurement ranges: 210 J / m² / 525 J / m² / 1050 J / m² / 2100 J / m²
- (Nominal energy quantity approx. 0.25 J to 1.5 J)
- Repeatability: <± 2% (auto calibration)
- Angular resolution: 0.04 ° / 0.09 ° (depending on the version of the equipment)
- Sample dimensions 25.4 mm x 25.4 mm (1.0 "x 1.0")
- Number of samples: 5
- Clamping pressure: max. 1410 kPa (With Air at 6, 0.1 bar sections)
- Pressure time: 1 - 60 seconds (1 second sections)

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Model	Application	4 Measure ranges J/m ²	Repeatability %	Specimen size mm	Dimensiones W x D x H /mm	Weight kg	Compressed Air Pressure
IBT	Paper - Cardboard	-210 -525 -1050 -2100	< ± 2 %	25,4x25,4	500x400x520	35	6 Bar, filtered, oil free

POWER SUPPLY: 110V / 60Hz or 220V / 50Hz single phase

TRANSPORT PACKAGING DIMENSIONS: 740 x 650 x 740 mm (W x D x H)

GROSS WEIGHT: 55 Kg (Wood packaging with phytosanitary treatment)

STANDARD SUPPLY CONTENT:

- * Internal Bond Tester model IBT
- * Aluminum test angles 25.4 x 25.4 mm (1x1 inches)
- * Connection cable + Testing Software