

# HORIZONTAL TENSILE TESTER

## 84-58-00



### TENSILE TESTING

Tensile testing is the most widely used method for indicating the serviceability of many materials including Paper, Board, Tissue Paper and Non-wovens. Tensile Energy Absorption (T.E.A.) indicates the durability of papers which are subjected to repetitive straining and stressing. The Horizontal Tensile Tester offers menu driven pre-selection of parameters and infra-red sample detection for quick, effortless testing.

The tensile measurement aids in assessing the suitability of a product for its end use and close relationship between tensile strain and fiber bonding serve to make this a very important test. Büchel B.V. has developed the Horizontal Tensile tester to perform these relevant tests in a professional way. The instrument has a built in large black & white liquid crystal display that is used in a conversational mode, allowing input of specimen identity and all relevant test parameters. The test results are displayed and transmitted via the RS232-C serial output.

### APPLICATIONS

Newsprint, Packaging Papers, Liner, Medium, Foils, Carton board, Tissue Products and Non-wovens, Low elongation films

### FEATURES

- Test statistics generated at the push of a button
- Load cell protected
- Auto return after test complete
- RS232 serial data output
- Wet test option
- Serial Printer output
- Multi-language standard
- Test speed 5-120 mm/min (0.2-5.0 in/min)
- Load cell ranges 50N, 100N, 250N, 500N
- Easy to load Air operated test clamps
- Clamping lengths 50, 100, 180 mm
- Specimen width 15mm, 25mm, 50mm or 0.5 in
- Menu driven pre-selection of parameters and infra-red sample detection
- Two pre-set test types are machine direction and cross direction
- Optional software can add hand sheet tensile test



**Display Screen**

**MEASURED AND CALCULATED VALUES**

- Tensile strength (KN/m-Newton-Lb)
- Elongation (%) and (mm)
- Tensile Energy Absorption TEA (J/m<sup>2</sup>)
- Tidx=Tensile Index (Nm/g)
- Eidx= Tensile Energy Absorption Index (J/kg)
- Tensile stiffness (kN/m)
- E-modulus (Gpa)

**STATISTICAL DATA**

Average, Maximum, Minimum, Coefficient of variation, Standard deviation

**STANDARDS**

- Meets TAPPI T-494, ISO 1924, ISO 12625-4, AS/NZ 1301.448s, BS EN ISO 1924-2, CPPA D34, DIN 53112, SCAN P38

**Specifications**

Model	84-58-00 (K465)
Test Speeds	5-120 mm (0.2-5.0 in/min)
Load Cells	50N, 100N, 250N, 500N
Clamping lengths	50, 100 and 180 mm
Specimen width	15mm, 25mm, 50mm or 0.5 in
Electrical	110V/60Hz or 220V/50Hz, 1Ph
Air	Instrument quality 600 kPa
Weight	38 kg (84 lbs)
Dimensions W x D x H	720 mm x 410 mm x 240 mm (28 in x 16 in x 9.5 in)

**Standards**

ISO 12625-4	Tissue Paper and Tissue Products-Part 4 : Determination of tensile strength, stretch at break and tensile energy absorption
TAPPI T-494	Tensile properties of paper and paperboard (using constant rate of elongation apparatus)
ISO 1924	Paper and board - Determination of tensile properties - Part 3: Constant rate of elongation method (100 mm/min)
AS/NZ 1301.448s	Methods of test for pulp and paper - Tensile strength of paper and paperboard (constant rate of elongation methods)
BS EN ISO 1924-2	Paper and board -- Determination of tensile properties -- Part 2: Constant rate of elongation method
CPPA D34	Tensile Breaking Properties of Paper and Paperboard
DIN 53112	Testing of Paper and Board: Determination of Tensile Strength
SCAN P38	Paper and Boards-Tensile Strength

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