

Tear Tester (Elmendorf Method) Micro Digital Model

This method measures the force perpendicular to the plane of the paper required to tear multiple sheets of paper through a specified distance after the tear has been started using an Elmendorf type tearing tester. The measured results can be used to calculate the approximate tearing resistance of a single sheet.

Significance: (Why this test ?)

When paper is subjected to high stresses in converting machine operation and handling equipment, good tearing resistance is very important. Also to achieve a higher puncture resistance result of the board, a higher tearing of the paper is desired.

Principle:

One or more sheets of the sample material are torn through a fixed distance by means of the pendulum of an Elmendorf type tearing tester. The work done in tearing is measured by the loss in potential energy of the pendulum. The instrument scale is calibrated to indicate the average force exerted when a certain number of plies are torn together (work done divided by the total distance torn).

Applications:

- Paper
- Film
- Foil

Dimensions:

- Depth: 365 mm
- Height: 450 mm
- Width: 365 mm

Standards:

- TAPPI T-414 om-88,
- IS 4006 (part II)1972,
- AS/NZ 1301.400s,
- DIN 53128,
- SCAN P11,
- BS EN 21974
- CPPA D9.

Weight:

- Net Weight: 25 kgs
- Gross Weight: 40 kgs

Accessories:

- One Pendulum of your choice.
- Sample cutter to cut sample to exact size as specified in the standards.
- Calibration check weight.

Power: 220 VAC, 50Hz Single Phase



Features:

- Indication of energy required to make a tear on digital LCD display
- Mechanical clamp mechanism exerts sufficient & fixed pressure to disallow any slippage of the test specimen.
- Useful for testing wide range of testing materials from thin paper to thick paper and other similar materials.
- Adjustable incision blade to give precise tearing length according to the test standard.
- Choice of any one of three interchangeable pendulums (800, 1600 and 3200) to analyze material of variable strength & thickness. (Optional)
- **Measuring unit millinewtons**



Sample Cutter