

Puncture Resistance Tester

Packaging materials like board, boxes etc are subjected to handling hazards and damage in use, similar to that occurring in this test, may result from contact with solid objects, such as the end of a piece of lumber or the corner of a wooden box. Resistance to puncture is an important parameter that determines the performance of such a material.

Significance: (Why this test)

The puncture test (also known as the beach test or G.E. puncture test) measures the resistance of board in either single sheets (that is components) or in combined form to puncture. Such puncture may result from contact with solid objects such as a corner of a box, or the like. The test evaluates in a composite fashion some fabrication factors and material values, although it is not possible to isolate the two specifically.

Principle:

The unit measured by the instrument is the energy required to puncture the container board in the designated manner (One unit equals 0.265 in.lb (0.305 cm.kg)). These units are actually made up of several components, the principal ones being the energy required to tear the material and the energy required to bend it out of the way of the point.

Applications:

- Paperboard
- Corrugated Board

Dimensions:

- Depth: 430 mm
- Height: 825 mm
- Width: 1275 mm

Weight:

- Net Weight: 107 kgs
- Gross Weight: 149 kgs



Features:

- Five different scales to analyze material of variable thickness.
- Easy lever press clamp mechanism exerts sufficient pressure to disallow any slippage of the test specimen.
- Zero adjustment screw for scale calibration.
- Protection guard to protect operator at the time of the test.
- Useful for testing wide range of testing materials- from thin paper to thick boards and other similar materials.
- Augmented weights to allow 1300 units of energy when the pendulum is in horizontal position

Accessories:

- Small lever holding bracket for half pendulum swing (in case of thick multi layer paper)

Standard:

- TAPPI T-803 om-88
- IS 4006 (part II)1972, IS 2771(part II)1973
- ASTM D-781-68
- DIN 53142
- SCAN P23