PCA Score Bend Tester

Score Bend & Opening Force

Versatile Paperboard & Carton Testing

The 1270 PCA measures the force to open or bend paperboard and scored paper carton. Force data is vital for accurately configuring machinery that controls cartons on form, fill and seal lines and to analyze carton performance for runnability and quality control.

The ability to predetermine settings in the production of cartons can increase overall efficiency. Maintaining identical package specifications between the producer and the packager has also shown to be of mutual benefit for increasing savings in less reworks, rejects and down-time.

The 1270 PCA also measures spring back after folding providing critical information for sealing or gluing operations.

Opening Force

Measures the maximum force required to open a flat, folded carton along score lines.

Bending Force - TAPPI T577

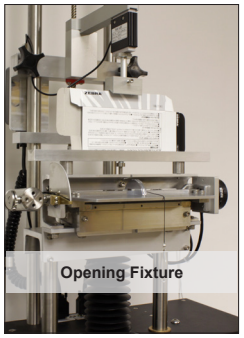
The optional bending fixture allows the ability to evaluated the maximum force to bend a carton sample up to 90°. Measure bending stiffness, score ratio of scored vs. unscored paperboard and carton fold springback force. The Bending Fixture uses a pneumatic clamp that is operated with a foot-control pedal. Pneumatic clamping ensures a secure hold and a higher repeatability than manual clamping. A set of three reference plates are included that are used to verify accuracy.

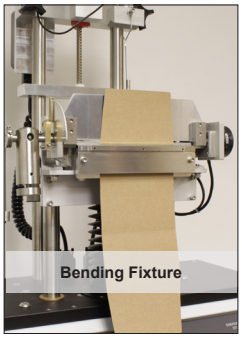
Score Quality - TAPPI T829

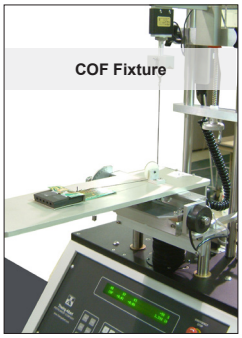
This fixture is available to measure score quality of corrugated containers according to TAPPI T829 when attached to the 1270 PCA Score Bend Tester or the Vantage Series Universal Testing Machine.

Coefficient of Friction (COF)

This fixture is used to measure static and kinetic coefficient of friction. The optional COF Fixture consists of a sample platform that provides a travel distance of 152.4 mm (6 inches). The platform quickly mounts to a support plate above the bending fixture which minimizes time to switch between bending and COF testing. A variety of sample sleds are available to meet your testing needs.







FEATURES

- Auto-zero & semi-automatic calibration
- Automatic return with overload protection
- RS-232 interface

PHYSICAL SPECIFICATIONS

Dimensions
558.8 mm x 406.4 mm x 1219 mm
(22 in W x 16 in D x 48 in H)

Shipping Dimensions
839 mm x 839 mm 1321 mm
(33 in W x 33 in D x 52 in H)

Net Weight: 68 kg (150 lb)

SOFTWARE FEATURES

- Test modes for opening force, bending force & COF tests
- Statistics include average, high, low & standard deviation
- Spring back of fold test
- Score ratio test mode of scored vs. unscored paperboard
- Test result & curve data for PC interface
- Optional Data Acquisition Software

TECHNICAL SPECIFICATIONS

Load Cells
500g, 20N, 50N, 100N

Force Accuracy
10% to 100% Load Capacity:
±0.25% measuring value

Less than 10% Load Capacity:
±0.025% of load cell capacity

Crosshead Speed
5 - 500 mm/min (0.2 - 20 in/min)

Air Pressure Requirements
75 psi/5.2 bar

Angle Measurement Range
Between 0-90° (selectable in 0.1° increments)

Angle Reading Resolution
0.36° or better

Position Measurement Accuracy
±0.1% of full scale distance

Sample Size - Opening Force Mode
From 25.4 to 457.2 mm (1 in to 18 in) when flat

Sample Size - Bending Force Mode
Up to 152.4 mm (6 in) sample width
Up to 6.35 mm (0.25 in) sample thickness

Specifications subject to change without notice.

Force Units
Grams, ounces, pounds, newtons, kilograms (selectable)

Distance Units
Inches, centimeters, millimeters (selectable)

Power Requirements
110-120/220-240 VAC @ 50/60 Hz

Power Consumption
Operating: 33 W Stand by: 28 W

Fuse Rating
6 amp @ 110 V, 60 Hz
3 amp @ 220 V, 50 Hz

Operating/Storage Environment
Air Temperature: 15° to 25° C
(48° to 88° F)

Relative Humidity: 20% to 60%
(Non-Condensing)

Output
RS-232, Parallel Port, Chart Recorder

Safety Features
Overload protection system - Electronic
Angle over-travel limit switch
Load cell incorporates mechanical limit stops upward and downward motion limit switches
Emergency Stop Button