

KES-FB2-A

Pure Bending Tester

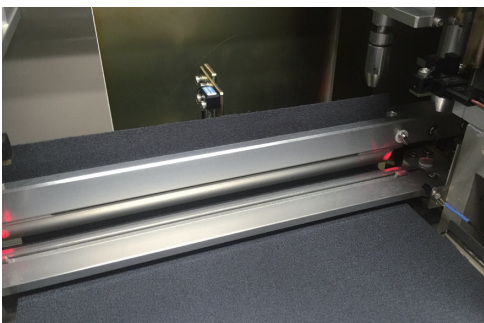
The KES-FB2-A Pure Bending Tester analyzes hand movements—referred to as “bending”—performed by artisans and professionals when judging a fabric’s texture. This device performs these movements mechanically, making it possible to obtain objective numerical data.

Obtainable data includes bending rigidity and recoverability for such targets as general fabric, cloth, paper, non-woven fabric, and film.

Bending characteristic data is useful for determining stiffness and fullness, softness, anti-drape stiffness.

**Measurement
Sample Example**

General fabric, Fabric, Medicinal fabric,
Car seats, Interior fabric, Non-woven fabric,
Film-like samples



FEATURES

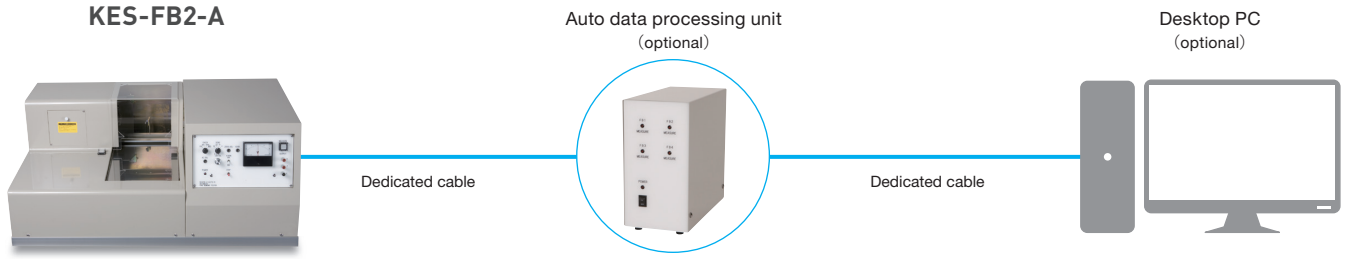
● **Improved data accuracy**

Motor chucking makes it easier to mount thin samples that would otherwise be difficult to mount. This eliminates errors caused by the user and improves the accuracy of data.

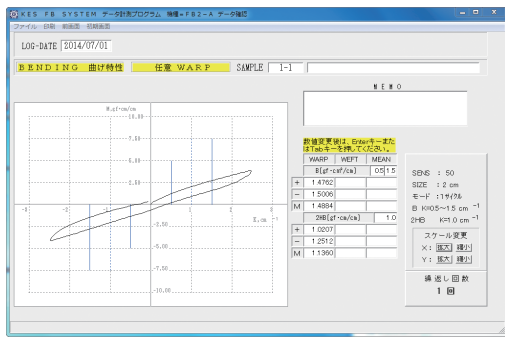
● **Display resolution (of software): 0.0001**

The ability to measure from extremely small values up to a maximum of 50 gf·cm means measurement can be performed for a wide variety of samples.

SYSTEM CONFIGURATION DIAGRAM / MEASUREMENT DATA



Sample Measurement Software Screens



▲ Bending properties

Obtainable Data

Item	Characteristic value	Description	Reading the data
Bending properties	B	Bending rigidity	Higher values mean more rigid bending
	2HB	Bending hysteresis (recoverability)	Higher values mean poor recoverability

KES-FB2-A Pure Bending Tester

Dimensions/Weight (approx.)	Measuring unit: W830 × D530 × H370 (mm) / 60 kg
Power source	100 VAC, power consumption: 50W Max.
Measurement operation	Controlled maximum curvature system (However, control is inverted when over-torque occurs.)
Measurement environment temperature and humidity	20 to 30°C / 50 to 70% RH. (No condensation.) Temperature and humidity should be kept constant during measurement. (Standard temperature and humidity conditions: 20°C / 65% RH) *The instrument should be located to minimize influence from wind or vibrations.
Load detection	Detector: Detecting system for torsional moment of a steel wire Sensitivity (full scale): Switchable between 4 ranges (4 gf-cm, 10 gf-cm, 20 gf-cm, 50 gf-cm) Accuracy: ±0.5% or less of full scale

Curvature detection	Detector: Potentiometer Maximum curvature: $K = \pm 2.5 \text{ cm}^{-1}$ Accuracy: ±0.5% or less of full scale
Rate of bending deformation	0.5 $\text{cm}^{-1} / \text{sec}$ (fixed)
Sample fixation method	Tightening: Tighten with a ratchet screwdriver at a constant torque Sample deformation length: 1 cm
Specimen size	Specimen size: 20 cm × 20 cm (standard) Sample width: 20 cm (max.), Sample thickness: 1 mm (max.)

⚠ Precaution For safety use, please read the operation manual / the instruction carefully and thoroughly before using the tester.

Specification details recorded here are subject to change without notice. We appreciate your understanding.



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