Obtainable data includes tensile/shear rigidity, tensile energy, elongation rates, and recoverability for such targets as cloth, paper, non-woven fabric, and film.

Tensile and shear characteristic data is useful for determining stiffness and anti-drape stiffness. These properties often influence form stability and the tendency for wrinkles.

**Sample Example**
- General fabric
- Fabric
- Medicinal fabric
- Car seats
- Interior fabric
- Non-woven fabric
- Film-like samples

**FEATURES**

- **Improved data accuracy**
  Sample slack is removed through motor chucking and clamping, eliminating errors caused by the user and thus improving the accuracy of data.

- **Detection resolution: 0.01**
  The KES-FB1-A makes it possible to quantify minute differences in tensile and shear properties.
**KES-FB1-A Tensile and Shear Tester**

**Dimensions/Weight (approx.)**

- Measuring unit: W610 × D535 × H320 (mm) / 45 kg
- Amplifier: W500 × D450 × H350 (mm) / 20 kg

**Power source**

100 VAC, power consumption: 40W Max.

**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)

**Measurement operation**

- Tensile measurement: Load control method
- Shear measurement: Deformation control method

**Tensile load detection**

- Detector: Resistance wire strain gauge type
- Load (full scale): (standard conditions) 50 kg,
  (high-sensitivity conditions) 2 kg
- Accuracy: ±0.5% or less of full scale

**Shear load detection**

- Detector: Ring-type detector with differential transformer
- Load (full scale): (standard conditions) 2 kg
- Accuracy: ±0.5% or less of full scale

**Sample size**

- Dimensions: 200 × 200 mm (standard)
- Thickness: 2 mm (max.)

**Obtainable Data**

<table>
<thead>
<tr>
<th>Item</th>
<th>Characteristic Value</th>
<th>Description</th>
<th>Reading the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile properties</td>
<td>LT</td>
<td>Tensile rigidity</td>
<td>Values closer to 1 mean firmer tensility</td>
</tr>
<tr>
<td></td>
<td>WT</td>
<td>Tensile energy</td>
<td>Higher values mean greater stretchability</td>
</tr>
<tr>
<td></td>
<td>RT</td>
<td>Tensile recoverability</td>
<td>Values closer to 100 mean better recoverability</td>
</tr>
<tr>
<td>Shear properties</td>
<td>S</td>
<td>Shear rigidity</td>
<td>Higher values mean harder shearing</td>
</tr>
<tr>
<td></td>
<td>2HG</td>
<td>Elasticity for minute shear</td>
<td>Higher values mean better recoverability from initial shear deformation</td>
</tr>
<tr>
<td></td>
<td>2HG1</td>
<td>Elasticity for large shear</td>
<td>Higher values mean better recoverability</td>
</tr>
</tbody>
</table>

**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.