

# TECHINCAL DETAILS OF FABRIC STIFFNESS TESTER

## 1. INTRODUCTION

A widely used method for determination of Stiffness of Fabric is cantilever Test method. In this test, the fabric specimen is allowed to bend under its own weight. The free length, which bends under its own weight sufficiently to make its leading edge intersect a plane of 41.5° inclination, is called as bending length of the fabric. The PARAMOUNT Fabric Stiffness Tester is used to determine the, flexural rigidity and bending modulus of fabrics by some calculations with this bending length.

## 2. EQUIPMENT

The PARAMOUNT Fabric Stiffness Tester has a solid Aluminum base with Nylon footrest to keep the base horizontal. The top plate is made of stainless steel to minimize friction between it and the test specimen. The sides are made from two acrylic plates (one Transparent & other Milky White). The inclined plane etched on the plates is filled with Red colour for permanent markings. A specially designed scale, with back up weight is provided to give the required load on specimen, and the same has rubber lined lower face to grip the specimen. The total assembly provided for loading the specimen and to directly gets its bending length.

## 3. SALIENT FEATURES

- Specially designed equipment to determine the bending modulus & Flexural rigidity of any type of fabrics.
- Ergonomic latest design with stylish appearance.
- This instrument directly gives the bending length to calculate bending modulus & Flexural rigidity from calculation.
- Top scale graduated in (0 to 16) centimeter, weight 270gms strictly meets the specification of ASTM standards.
- Any fabric can be checked in this instrument except those fabrics have high inclination to curl at end after
- Cutting Metal base for long life & durability.
- Supplied with complete accessories- two templates for preparing sample.
- Supplied with calibration & inspection certificates.



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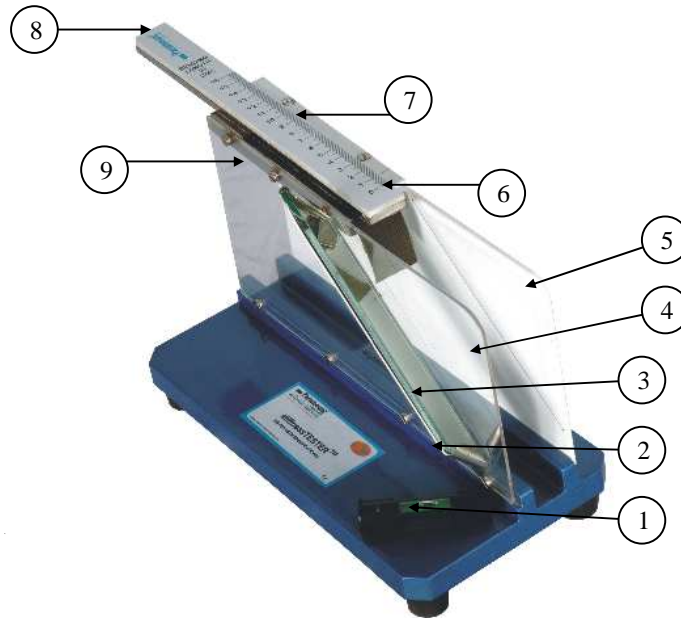


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#### 4. DETAILS OF THE MAIN UNIT OF FABRIC STIFFNESS TESTER



1. Spirit Level for Checking the Leveling.
2. Mirror holder.
3. Mirror to check deflection of Fabric.
4. Acrylic Plate (Transparent).
5. Acrylic Plate (Milky).
6. Reference mark on the Platform.
7. White acrylic strip for top plate (Milky).
8. Calibrated scale.
9. Platform for keeping specimen & graduated scale.



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## 5. DETAILS OF THE ACCESSORIES SUPPLIED WITH FABRIC STIFFNESS TESTER



Main Unit



Calibrated Scale



Specimen Preparation Template (150 x 25 mm)



Spirit Level For Checking the Leveling



Dust Cover



This User's Manual



Calibration & Inspection Conformance Certificate

**FABRIC STIFFNESS TESTER** is Supplied Complete with below Accessories:

- |  |          |
|--|----------|
| 1. Main Unit                                   | : 01 No. |
| 2. Calibrated Scale                            | : 01 No. |
| 3. Specimen Preparation Template (200 x 25 mm) | : 01 No. |
| 4. Specimen Preparation Template (150 x 25 mm) | : 01 No. |
| 5. Spirit Level for Checking the Leveling      | : 01 No. |
| 6. Dust Cover                                  | : 01 No. |
| 7. Detailed User's Manual                      | : 01 No. |
| 8. Calibration Certificate (Traceable to NPL)  | : 01 No. |
| 9. Inspection & Conformance Certificate        | : 01 No. |



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## 6. TECHNICAL DETAILS OF FABRIC STIFFNESS TESTER

Angle of inclination of intersecting plane to Horizontal	: 41.5°
Angle of inclination of intersecting plane to horizontal	: 41.5°
Load on test specimen	: 10 + 2 gm/cm length
Balancing length scale	: 0 – 16 cms. , L/c : 0.1 cm.
Over All Dimensions of the Instrument	: 275 (L) x 140 (W) x 200 mm (H) 11”(L) x 5 1/2” (W) x 8” (H)
Net Weight of the Instrument	: 3 Kg. (6.6 lbs)

## 7. RELATED STANDARD

BSEN 22313  
ASTM D1388  
BS 3356 / 9073-7  
ERT 50-3  
IS 6490-1971

*NOTE : With our constant endeavour to improve & excel, we reserve the right to alter the specification or modify the appearance without notice.*



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