James Heal™

OPERATOR'S GUIDE

Crease Recovery Angle Tester Model 150

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SCOPE

The **Crease Recovery Angle Tester** is used to determine the recovery from creasing of a horizontally folded specimen by measuring the angle of recovery.

In compliance with the requirements of EN 22313, ISO 2313 M&S P22 and AATCC Test Method 66.

It is particularly applicable to fabrics used in woven apparel, for example, suits, slacks, jackets, blouses, skirts, shirts, rainwear and flat unbrushed cellulosic fabrics.

Creases in textile fabrics diminish, at varying rates, on removal of the creasing forces. The magnitude of the crease recovery angle is an indication of the ability of a fabric to recover from accidental creasing.

A crease is formed by folding a rectangular specimen of prescribed dimensions and subjecting it to a specified load for a given time. On removal of the load, the specimen is allowed to recover for a specified time and the crease recovery angle measured.

Tissue is placed inside the folded specimens to counteract any tendency for the two surfaces of the specimen to adhere.

The Loading Device has provision for applying two different loads. Two templates are supplied for alternative specimen sizes.

The optional 500g weight is required for AATCC Test Method 66.

The right is reserved to alter the specification or modify the appearance without notice.

UNPACKING

- Check all packaging and contents from the case.
- Do not dispose of any packaging material until all items are accounted for.

3 - IDENTIFICATION OF PARTS

The following is a list of items supplied with the **Crease Recovery Angle Tester.**

- Check the items against the original order.
- Please notify James H Heal immediately in the event of discrepancies.

Standard Accessories

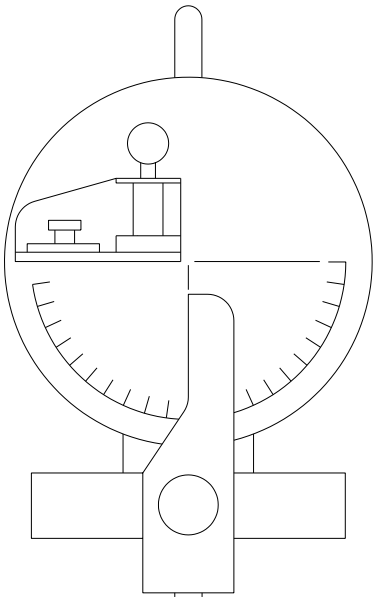
- Loading Device (10N and 19.63N)
- Specimen Tweezers (Stainless Steel)
- Specimen Tweezers (Plastic)
- Specimen Template 40 x 15 mm
- Specimen Template 50 x 25 mm
- Pack Paper Tissue

Optional Accessories

- Weight (500 g) for AATCC 66.

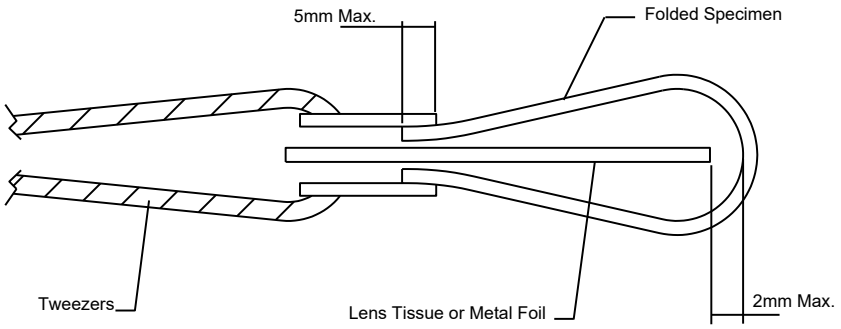
4 - ASSEMBLY

- Place the Crease Recovery Angle Tester and accessories on a suitable bench or table.
- The bench/table must not be subject to vibration or draughts which may influence the test.
- The general assemblies are illustrated below.



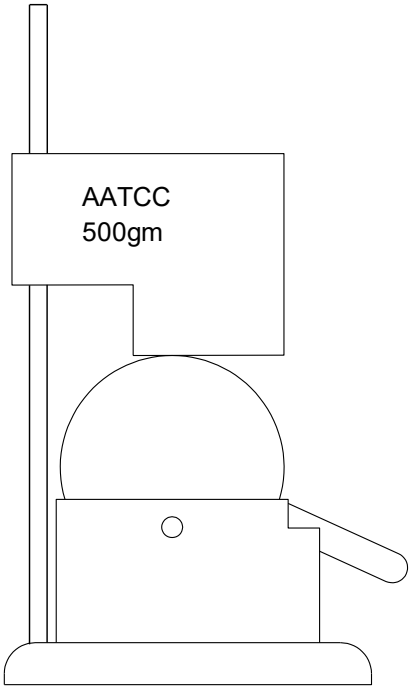
Instrument for Measuring the Crease Recovery Angle

FIGURE 1



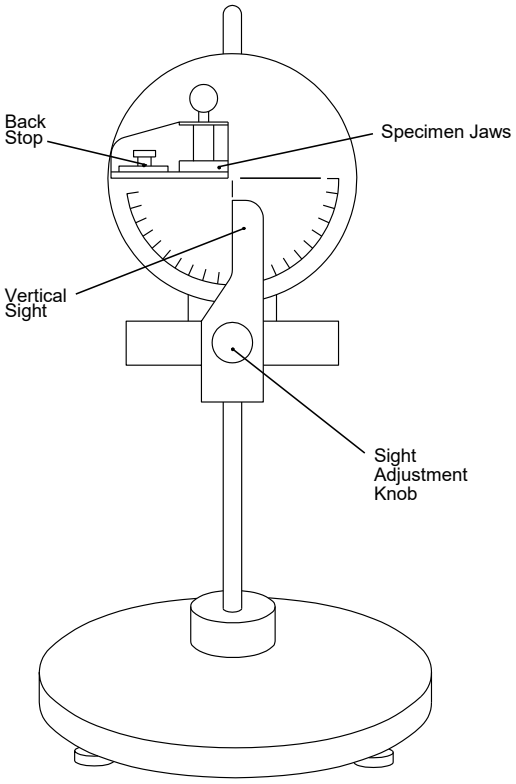
Folding of Specimen

FIGURE 2



Loading Device

FIGURE 3



Crease Recovery Angle Tester

FIGURE 4

Table 1. Summary of Test Method & Accessories

Test Method:	EN 22313 / ISO 2313	M & S P22	AATCC TM 66
Specimen size (mm)	40 x 15	50 x 25	40 x 15
Loading weight	10 N (A)	2 kg (A + B)	500 ± 5g (AATCC)
Applied area (mm)	15 x 15	20 x 25	15 x 15
Loading time (seconds)	5 min ± 5 s	60 s.	5 min ± 5 s
Recovery Time	5 min ± 5 s	60 s.	5 min ± 5 s
Method of handling	Forceps & rubber finger stall	Forceps & sugical glove	Forceps Metal for loading Plastic for handling

The following is a description of the general method of test. Reference must be made to specific relevant standards.

Cut samples in both fabric directions from the relevant template provided.

Ensure the Crease Recovery Angle Tester is levelled by means of the adjustable feet and the inset spirit level as a reference.

Adjust the vertical sight to suit the specimen size. Loosen the knurled locking screw and lift the sight into the fully upper vertical position for a 40 x 15mm specimen or fully lower vertical position for a 50 x 25mm specimen.

Adjust the variable back-stop position on the Crease Recovery Angle Tester to accommodate either specimen size. The stop is pushed fully forward for the smaller size and fully backward for the larger.

Prepare the loading device for the load required to form the crease in the specimen. The load applied without the additional weight is 10N and with the additional weight 19.63N (2kg).

Should the specimen show any tendency for the surfaces to adhere place a tissue between the two surfaces of the folded specimen.

Fold the specimen end to end in the longer dimension and hold this position by means of the spade-ended stainless steel tweezers, gripping no more than 5mm from the ends. Use the plastic tweezers supplied to manipulate the specimen without touching the specimen with the fingers of the hand.

Lift the upper plate of the loading device and place the specimen on the lower plate. Gently lower the upper plate without delay to apply the required load to the folded specimen.

Keep the specimen loaded for the specified time interval.

Remove the load quickly but with a smooth action so the specimen does not spring open. Complete the removal in less than 1 second.

By means of the spade ended stainless steel tweezers, transfer the specimen to the Crease Recovery Angle Tester. Hold **one** of the previously folded arms of the specimen in the spade-ended tweezers and gently introduce the other arm between the two jaws of the grip up to the back stop. **Do not disturb the crease** during transfer.

Remove the tissue if applied previously, prior to forming the crease.

Use the plastic tweezers supplied to manipulate the specimen without touching the specimen with the fingers of the hand.

Adjust the instrument continuously to keep the suspended arm of the specimen in a vertical position using the vertical sight as the reference point.

Read the crease recovery angle after the removal of the load, at the time interval specified in the test method.

6 - MAINTENANCE

- Keep the instrument clean.

- **Do not use any abrasive or solvent product when cleaning the dial.** Simply use a clean dry duster to remove any accomulated debris.

- No further maintenance is necessary.

7 - SPARES AND CONSUMABLES

Stock code	Optional Accessory
789-514	Pack Paper Tissue (25 sheets 100 x 150 mm)
780-875	Weight (500 g) for AATCC 66.

8 - HEALTH AND SAFETY

SPECIFIC RISKS: NONE