

DRAPE TESTER MODEL 665

OPERATOR'S GUIDE

COVERING SERIAL NUMBERS 665/10/1001 UPWARDS

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OPERATING INSTRUCTION MANUAL FOR DRAPE TESTER MODEL 665

INSTALLATION

1. Unpack the instrument carefully and check that the following accessories have been supplied with it:
 - (a) Parabolic Mirror
Caution :
This is an expensive and fragile component and must be handled with care
 - (b) Power cable and connector
 - (c) Three specimen templates – 36cm, 30cm and 24cm diameter
 - (d) One template (placed over specimen during test) - 18cm diameter
 - (e) Specimen marker pin (pricker)
 - (f) Paper rings – 36cm, 30cm and 24cm diameter - as ordered

Some of these items are packed separately, and some are stored in the internal triangular compartment in the lower right hand corner of the instrument.

2. Completely remove the four mirror clamps using a screwdriver. Place the parabolic mirror in position and secure it by replacing the four mirror clamps provided. Take care not to over tighten the clamps as this could damage the mirror.
3. Mount the instrument on a firm and level surface and adjust the feet until the tester is completely level.
4. The mains-to-6 volt transformer is located in the internal triangular compartment in the lower left hand corner of the instrument. This compartment cannot be opened. The socket for the electrical connection is situated at the rear of the instrument.
5. Checking the focus of the mirror by placing the 30cm diameter template on the perspex support ring inside the instrument. This should cast a 30cm diameter shadow on to a 36cm diameter paper ring, placed in position, on top of the lowered lid of the instrument.
6. Wipe the lamp and mirror free of dust and finger marks.

TEST METHOD

Introduction

The paper ring is placed on the top of the tester. The fabric is allowed to drape under its own weight. With the help of a light and a parabolic mirror underneath the specimen, the drape image of the fabric is reflected on to the paper ring. After tracing the drape image, the paper ring is cut to separate the shadowed and non-shadowed area. The drape coefficient is then calculated.



Figure 1: The Drape Tester

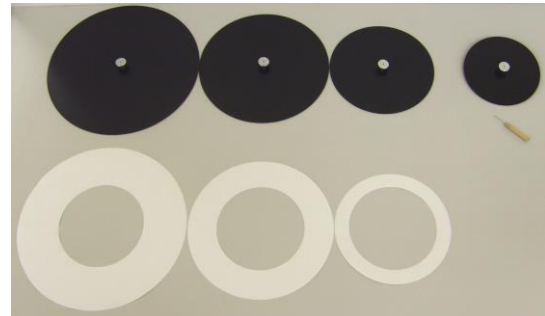


Figure 2: Templates and Paper Rings

Test Procedure

1. Select the appropriate template – 36cm, 30cm or 24cm diameter - and corresponding size of paper ring. The choice is dependent upon the stiffness of the sample. The limper the sample, the smaller the template and ring required, and vice versa.
2. Place the selected template on the specimen and mark round it.
3. Push the marker pin (pricker) through the template centre in order to make a small hole in the middle of the specimen.
4. Cut out the specimen.
5. Switch on the light.
6. Raise and lock the lid in the open position.
7. Place the specimen on the disc inside the instrument, so that the vertical locating pin passes through the central hole, made previously with the marker pin.
8. Place the 18cm diameter template over the specimen to hold it in position.
9. Lower the lid.
10. Place a paper ring on the lid around the locating disc.

11. Draw the shadow outline on the paper.
12. Repeat steps 6-11 for the other side of the specimen.
13. Calculate the drape coefficient as follows:
 - (a) Weigh the paper ring to the nearest 0.01g (C).
 - (b) Cut along the trace of the shadow outline with scissors.
 - (c) Weigh the inner part of the ring to the nearest 0.01g (A)
 - (d) Calculate the drape coefficient in the formula

$$\frac{C}{A} \times 100\%$$

- (e) The drape coefficient of a specimen is the mean of 2 results, one from each side of the specimen.

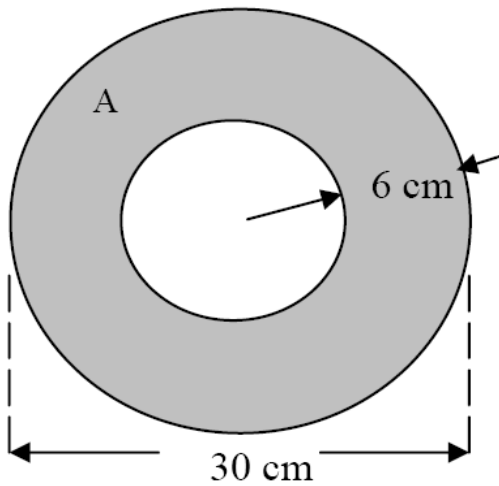


Figure 3: Paper ring

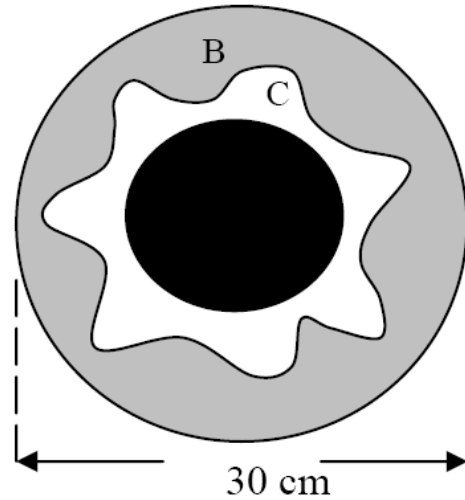


Figure 4: Paper ring with draped image

SPARES AND CONSUMABLES

These are available as follows:

Stock Code	Description
788-751	Paper Rings 24cm diameter - per box (500)
788-752	Paper Rings 30cm diameter - per box (500)
788-753	Paper Rings 36cm diameter - per box (500)
106-149	Spare Bulb
396-131	Mirror