METHOD OF TEST

TENSILE STRENGTH OF BRA WIRE CASING

PURPOSE To assess the tensile strength of bra wire casing fabric.

APPARATUS

1. A constant rate of traverse tensile testing instrument that meets the following requirements (see Equipment Index Ref: 13U, 16A, 18A and 24D).
   - (a) Load cell with 50kg capacity.
   - (b) 100mm per minute constant rate of traverse.
   - (c) Pneumatically operated sample jaw with a pair of rubber jaw faces that give an area of contact when closed together of 75mm x 25mm. The 75mm length to be vertical.
   - (d) Bra wire jaw assembly, designed to hold a prong in such a way that (f) can be met. (See Equipment Index Ref. 16E or suitable alternative that meets the same specification).
   - (e) Standard prong (see note 1).
   - (f) Initial separation between the pneumatic jaw faces and tip of the prong of 75mm.

   either Autographic load/extension chart recorder compatible with these requirements and the testing instruments.
   or A computer with Marks and Spencer approved software and printer may be used.

2. Metal ruler with mm graduations (see test method PG).

TEST SPECIMEN Six specimens of bra casing fabric, 300mm long.

Tubular From one end, slit the reverse of the casing down the centre to the midway point, taking care not to damage the face. Cut away approximately 30mm of casing at this point.

Open Width If lining tape is to to be used in the garment, the Garment Manufacturer should test the composite casing and lining tape, as manufactured in production.

NB: Face is referring to the side of the tape in contact with the skin. Reverse is referring to the side of the tape in contact with the bra.

CONDITIONING Condition the prepared test specimens for a minimum of 4 hours in the standard atmosphere for testing, at a temperature of 20°C±2°C and a relative humidity of 65%±2%.

The equipment must be sited in this atmosphere.

Carry out the tests in this atmosphere.

WET TEST (if specified)
Soak the fabric specimens in a relaxed (open) state for 15 minutes in distilled water at 20°C. Blot off excess moisure with a paper towel and test whilst wet.

METHOD

1. Ensure that the testing equipment is set up exactly as described under 'Apparatus' above and calibrated according to the manufacturers instructions.

2. Position the specimen so that the area of the specimen, which has been cut away, is over the end of the prong.

3. Secure the two ends of the specimen in the pneumatic jaw. The specimen should be positioned centrally and vertically ensuring that no tension is applied.

4. Set the machine in motion and measure the load required to penetrate through the face area of the specimen (see Note 2).

   Repeat this procedure for the remaining five specimens.

RESULTS

1. Report the range of results.

2. Report the average result to the nearest 0.5kg.

NOTES

1. Standard Prong specification.
   Diameter at point: 2.6mm
   Protruding Length: 15mm
   The radium of the tip and the adjacent diameter is polished to 0.1mm Ra (micrometers Roughness average).

2. If a specimen slips through the jaws, it should be discarded and a fresh specimen tested. This usually occurs because the specimen has been mounted incorrectly, or the jaws were incorrectly tightened.

NEW METHOD OF TEST