



Simple and effective test method

Used to determine the tuft retention force of carpet pile yarns.

The tuft retention property is an important factor in the useful life of a tufted or traditional carpet. Carpets that are badly constructed or poorly backed may lose complete tufts in some situations, for example on stairs. In loop pile carpets, a good bind is necessary to prevent long runner loops being formed.

The WIRA Tuft Withdrawal Tensometer measures the force required to withdraw a single tuft or loop of pile from a carpet, indicating the binding force between carpet pile and backing. The instrument is normally used on small samples of carpet in the laboratory, but the balance may be detached and used in selected positions during manufacturing or on carpets already laid.

Test Method

The carpet sample is held down by a steel plate. A pair of surgical forceps is clamped to one end of the tuft to be tested, or a hook threaded through one loop.

The forceps or hook are linked to a dial balance which is raised at a steady rate by an electric motor.

Tension on the tuft or loop is thus increased and a 'dead' pointer on the balance indicates the maximum force needed to withdraw it.

The standard instrument is supplied with a balance registering up to 5kg. An alternative 10kg balance is available for testing carpets with a higher pile binding force.

(Order code for 10k weight TWT:002)

Key Features

- ✓ *Can be used in the lab, factory floor or where carpets are laid*
- ✓ *Traditional test method*
- ✓ *Simple to use*
- ✓ *Conforms to BS 5229 standard*

Dimensions: 430mm (W) x 300mm (D) x 535mm (H)

Power consumption: 20W

Conforms to: BS 5229:1975 (1996) ISO 4919:1978

Order Code: TWT:001