

TESTING INSTRUMENTS FOR
A MEASURABLE DIFFERENCE...

iDM
instruments

CARPET PEEL & TUFT TESTER

MODEL: IDM-C0051-M1



INTRODUCTION

The Carpet Peel & Tuft tester is a motorised instrument designed to measure:

- The force required to peel backing material from carpet. (Eg. the binding force between the carpet pile and backing)
- The force required to withdraw a single tuft, or loop of pile, from the carpet.

Tuft retention property is also an important factor in the useful life of a tufted or traditional carpet. Carpets which 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 formed.

Test Methods

Peel Testing

The backing of the carpet piece is fastened to the instrument, by sample grips. One grip is secured to the base of the motorised test stand and the other is secured to the digital force gauge. The force is raised at a steady rate and the digital gauge indicates the tension force as the sample backing is peeled from the carpet.

Tuft/ Loop Withdrawal

The carpet sample is held down by a steel plate, and 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 the digital force gauge, which is raised at a steady rate. (The average test time for the achievement of the maximum withdrawal force of the tufts and loops should be between 5s and 10s). Tension on the tuft or loop is increased and the digital force gauge indicates the maximum force needed to withdraw the tuft or loop.



SPECIFICATIONS

- **Portable motorised stand**
- **Digital Force Gauge:**
 - o 50 lbF, 25 kgF, 250 N
 - o Peak memory for tensile loads
 - o Accuracy: $\pm 0.3\%$ of full scale \pm digit
 - o Safe overload: 150% accuracy
 - o Selectable units of measurement: kg, N, or lbs
 - o Push-button calibration
 - o IPM – Intelligent Power Management system
 - o Battery or AC operation
- **Sample grips for peel testing**
- **Tuft withdrawal fixtures**
- **Loop fixtures**

APPLICATIONS

- Textile floor covering which has a tuft (cut) loop pile yarn structure
- Woven: individual loops
- Woven: individual cut tufts

STANDARDS

- AS 2111.15
- ASTM D1335
- BS 5229
- ISO 4919
- IWS 202

OPTIONAL ITEMS

IDM-C0051-OP1 - Tuft & Loop Withdrawal Fixture

IDM-C0051-OP2 - Grips set, 3" Wide (for peel testing) pricing is for 2 grips

IDM-C0051-OP3 - Integrated Overload Protection

DIMENSIONS

Instrument:

- H: 535 mm
- W: 430 mm
- D: 300 mm
- Weight: 45 kg

CONNECTIONS

Electrical: 220/240 VAC @ 50 HZ
or
110 VAC @ 60 HZ
(please specify when ordering)

WARRANTY AND CALIBRATION SERVICES

- **1 year Warranty**

Our **Preventive Maintenance and Calibration (PM&C) program** has been designed to make the maintenance and calibration of your valuable testing equipment more cost effective by preventing breakdowns and downtime by regular calibration, service and replacement of defective parts. Take to us about this today.