

TXL-KMS-002 / 27 October 2026 · One-year manufacturer warranty

Crockmeter — Colour Fastness to Rubbing

Evaluates textile colour fastness after dry or wet rubbing. Staining of the rubbing cloth is assessed using the grey scale for staining. Manual and motor-driven models are available.



Model technical data

1	Measures rubbing fastness by the colour change of the specimen and the staining of the accompanying fabric.
2	Specimens are rubbed against dry, undyed cotton accompanying fabric.
3	The staining ratio of the accompanying fabric is evaluated on the staining grey scale.
4	The automatic model has a digital controller and a motor.

Physical specifications and utilities

Electrical supply	Manual version: no mains; motorised version: Approx. 220–240 V AC, 50/60 Hz, single phase.
Power / connected load	Manual: Approx. 0 W; motorised: Approx. 30–100 W.
Overall instrument dimensions	Approx. 650 × 250 × 350 mm (W × D × H).
Instrument weight	Approx. 8–20 kg net.
Gross / shipping weight	Approx. 18.8–35 kg gross; estimated packing allowance.
Lab requirements	Level, stable working surface; specimen conditioning follows the selected method.

Dimension order and approximate values are stated in each row. Packaging data are separate from instrument dimensions and net mass. Approx. rows are preliminary engineering estimates based on comparable equipment and function/capacity; they are not verified manufacturing measurements or standard requirements. Installation and shipment are finalised against the approved drawing and nameplate. Estimate scope: base product / one unit; external computer, bench and auxiliary plant excluded.

Specifications, dimensions, and power requirements are approximate and subject to change without prior notice for continuous design improvements.

Product technical specifications and images may vary according to manufacturing conditions and applicable standards.

Test and configuration

Measured output / function	Staining grade of rubbing cloth after rubbing
Parameters selected for the method	Rubbing head, load, motion and wet/dry condition
Verification points	Force, stroke, counter and reference cloth

Control and recording specification

Method-specific software and recording requirements follow. Delivered software modules are defined by the order scope.

- The need for integrated software depends on the method and selected hardware; manual instruments use an external test record.
- Method code and edition, specimen ID, operator and selected test parameters are linked to the record.
- The calculation and endpoint are defined by the selected method edition; instrument signals and operator assessments are kept distinct.
- Raw measurements, units, valid/invalid test flags and the reported result remain traceable.
- Calculations are checked against known inputs and an independent calculation; sensor channels are checked against calibration values.
- The M&S C8 recipe records edition, verified travel/force, complete-cycle count and total duration. Manual wet-cloth preparation and separate dry/wet assessments are operator records; automatic moisture control or grey-scale scoring is not assumed delivered.
- Select NEXT TM6, M&S C8 and AATCC wet-rubbing recipes separately. The NEXT record holds dry/wet cloth masses, verification of 100% pickup, direction, 10 complete cycles and operator D65 assessment. Cloth preparation and grey-scale scoring are not assumed automatic instrument functions.

Related test methods

AATCC 8 · AATCC 165 · BS 1006 D02 · BS 4655 · ISO 105-X12 · ISO 105-D02 · M&S C8 · NEXT TM 6

Listed methods are application references. Suitability is established by assessing hardware, method edition and calibration together.

Historical method references: BS 1006 D02

Test parameters for the reviewed method

The values below were reviewed in selected clauses of the stated source edition. They are not a declaration of equivalence to a later edition or independent instrument verification.

ISO 105-X12:2001 / EN ISO 105-X12:2002 / 4.1.1 / 4.1.2 / 4.2

1	Rubbing travel: 104 ± 3 mm; applied force: 9.0 ± 0.2 N.
2	Standard cylindrical finger: 16.0 ± 0.1 mm diameter; pile materials use a separate finger geometry.
3	Rubbing cloth for the cylindrical finger: 50 × 50 mm, ±2 mm on each dimension.

TS 7807 EN ISO 105-D02:2002 / 4.1, 6.2

1	Organic-solvent rubbing recipe: 16 mm finger, 9 N vertical force, ten reciprocating rubs in 10 s over a 100 mm track. Track length is set separately from the ISO 105-X12 recipe.
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AATCC 8-2007 / 5.2, 8.1, 9.2

1	Crock cloth 50 × 50 mm; wet-test pickup 65 ±5%. Specimen and crock cloth conditioned for at least 4 h at 21 ± 1 °C and 65 ±2% RH; conditions included in the report.
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AATCC 165-2008 / 9.1.2, 13.3

1	Carpet-crocking option: rectangular block face 19.0 × 25.4 mm, cloth 25 × 100 mm; travel about 100 mm and downward force about 9 N. Select this special block separately from the standard round crockmeter finger.
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M&S C8 — October 2004 / Apparatus; Test specimen; Dry Rub 3; Wet Rub 1–3; Notes 1, 7; pp.1–3

1	M&S C8, October 2004, Note 1: straight rubbing track 105 ± 5 mm; flat circular finger 16 mm in diameter, downward force 9.0 ± 0.2 N. The finger remains in contact throughout the cycle. These are apparatus requirements of the reviewed historical edition; instrument verification is separate.
2	Specimen at least 250 mm long in the test direction and at least 50 mm wide; SDC cotton rubbing cloth 50 × 50 mm. Dry test: 10 complete cycles / 20 strokes in a total of 10 ± 1 s. Distinguish complete cycles from one-way strokes.
3	Use a separate specimen for wet testing. Wet the cloth with distilled water and squeeze excess water by hand; no mechanical squeezing or absorbent towels. Dry the cloth at no more than 60 °C and report dry/wet staining separately. Do not import the AATCC pickup percentage into this recipe. The three pages read are the October 2004 edition, not evidence of current M&S approval.

NEXT TM 6 — January 2008 / Apparatus; Specimen preparation; Dry/Wet procedures; Evaluation/report; pp.1–4

1	NEXT TM6 January 2008: straight rubbing track 104 ± 3 mm; circular finger diameter 16 mm, downward force 9 N. These are requirements of this method edition; verify travel and force on the delivered instrument.
2	Prepare two dry and two wet fabric specimens, each at least 50 × 200 mm, with lengthwise and widthwise directions represented in each pair. Yarn preparation template at least 140 × 50 mm. Each test uses 10 complete reciprocating cycles at 1 s per cycle.
3	Set wet-cloth pickup to 100% with grade 3 distilled/deionised water, weighing and adjusting by blotting or rewetting; auxiliary balance accuracy 0.01 g. Dry at room temperature and report dry/wet results in both directions separately. Requires NEXT-approved cotton cloth without optical brightener, size or finish, and D65 assessment. The historical 2008 edition is not current NEXT approval.