

TXL-KMS-008 / 27 October 2026 · One-year manufacturer warranty

Air Permeability Tester

Digital, automatic pressure regulation air permeability.



Model technical data

1	Test head: 20 cm² as standard.
2	Maximum pressure difference: 500 Pa.
3	Flow indication: dm³/min; area-normalised permeability is evaluated separately.
4	Electronic control; test area and pressure difference are selected for the method.
5	Optional test head areas: 5, 25, 38, 50 and 100 cm².

Physical specifications and utilities

Electrical supply	Approx. 220–240 V AC, 50/60 Hz, single phase; build-dependent.
Power / connected load	Approx. 500–1500 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 700 × 700 × 1200 mm (W × D × H).
Instrument weight	Approx. 70–110 kg net.
Gross / shipping weight	Approx. 102–162.5 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	Air permeability at a defined area and pressure difference
Parameters selected for the method	Test head, pressure difference and flow range
Verification points	Flow, differential pressure, area and airtightness

Control and recording specification

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

- Method code and edition, specimen ID, operator and selected test parameters are linked to the record.
- Permeability = volumetric flow / test area; pressure difference, area and unit conversion are retained in the report.
- 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.

Related test methods

ASTM D3574 · ASTM D737 · BS 5636 · DIN 53887 · ISO 9237

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

Historical method references: BS 5636, DIN 53887

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 9237:1995 / 7.1 / 7.4 / 7.6 / 9

1	Area: 5 / 20 / 50 / 100 cm ² ; area tolerance no greater than ±0.5%.
2	Required pressure-difference and flow measurement accuracy: ±2%.
3	At the recommended 20 cm ² area: 100 Pa for apparel fabrics and 200 Pa for industrial fabrics; alternatives are reported.

ASTM D737-96 / 6.1.1-6.1.5, 10.4

1	Air-permeability method: head area 38.3 cm ² ±0.3%; alternative areas may be agreed. Use 125 Pa pressure difference unless a product specification states otherwise; pressure and flow measurement accuracy ±2%. ISO areas and pressures are separate recipes.
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ASTM D3574-17 — Test G / 63.2–63.4, 64.1, 65.4–65.5

1	2017 Test G: foam-holder cavity 50.0 ± 0.5 × 50.0 ± 0.5 × 25.0 ± 0.5 mm; pressure 125 ± 1 Pa, wait ≥10 s. Manometer/flowmeter accuracy ±2%. Requires foam adapter and calibration; fabric head alone does not establish conformity. 2025 edition unverified.
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