

TXL-HAL-009 / 27 October 2026 · One-year manufacturer warranty

Carpet Thickness Gauge

Measures textile thickness under a specified pressure. Measuring range 0.01–50 mm, resolution 0.01 mm. Controls are operated from the touchscreen; computer, printer and PC software are optional.



Model technical data

1	Determines the thickness of textiles and textile products under a specified pressure.
2	Thickness measurement range is 0.01 to 50 mm.
3	Measurement accuracy is 0.01 mm.
4	Pressure feet of 5 cm², 10 cm² and 20 cm² can be supplied optionally.
5	All controls can be operated from the touch screen without a PC.
6	A USB port is standard; computer, printer and PC software are optional.

Physical specifications and utilities

Electrical supply	Approx. battery / rechargeable battery; voltage and charger depend on build.
Power / connected load	Approx. 1–5 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 450 × 400 × 600 mm (W × D × H).
Instrument weight	Approx. 12–25 kg net.
Gross / shipping weight	Approx. 23.2–41.2 kg gross; estimated packing allowance.
Interfaces	A USB port is standard; computer, printer and PC software are optional.
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	Thickness under specified pressure (mm)
Parameters selected for the method	Presser-foot area, pressure and dwell time
Verification points	Gauge blocks, zero and contact force

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.

Related test methods

ISO 5084 · ISO 9073-2 · ISO 2286-3 · ASTM D1777 · TS 7128 · TS 1534-3

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

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.

EN ISO 2286-3:1998 / TS 1534-3 EN ISO 2286-3:2001 / 4

1	For coated fabrics: presser-foot diameter at least 9 mm; selected pressure 2 ± 0.2 , 10 ± 1 or 24 ± 2.4 kPa. Readability 0.02 mm; anvil diameter at least 50 mm greater than the foot diameter.
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EN ISO 9073-2:1995 / TS EN ISO 9073-2:1998 / 5.1-5.3

1	Different fixtures are selected according to nonwoven bulk. General arrangement: presser area about 2500 mm ² and indicator graduation 0.01 mm; bulky-material methods require a separate arrangement for 0.02 kPa pressure.
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ASTM D1777-96 (2002) / Table 1, Option 1

1	Table, woven-fabric option: foot diameter 28.7 ± 0.02 mm; pressure 4.14 ± 0.21 kPa; readability 0.02 mm. Other materials require their own foot/pressure option; this is distinct from the ISO 5084 recipe.
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TS 7128 EN ISO 5084:1998 / 1, 5

1	General-textile thickness uses a reference foot 2000 ± 20 mm ² and pressure 1 ± 0.01 kPa or 0.1 ± 0.001 kPa; indicator accuracy 0.01 mm. The method excludes carpets, nonwovens, geotextiles and coated fabrics; these require separate feet/methods.
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TS 1534-3 EN ISO 2286-3:2001 / 4-6

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| 1 | Coated-fabric thickness uses a foot at least 9 mm in diameter; preferred pressure 2 ± 0.2 kPa, alternatives 10 ± 1 or 24 ± 2.4 kPa. Dwell 10 s, or 30 s for compressible surfaces; record foot and pressure selection. |
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