

TXL-GEN-013 / 27 October 2026 · One-year manufacturer warranty

Melt Flow Index (MFI) Tester

Melt flow index measurement of plastic materials. A functional device that meets the basic needs of every textile laboratory, offering regular and flexible operation capabilities.



Model technical data

1	Temperature range: + 100 ° C to + 400 ° C.
2	Temperature Accuracy: ±0.1°C.
3	Optional Weight: 25kg.
4	The device has a 4.3 color touch screen.
5	Weights given as standard together with device: 1 unit of 0.325 kg, 1 unit of 1.2 kg, 1 unit of 2.16 kg, 1 unit of 5 kg, 1 unit of 5 kg (to complete 10 kg).
6	USB communication port is available as standard.

Physical specifications and utilities

Electrical supply	Approx. 220–240 V AC, 50/60 Hz, single phase; build-dependent.
Power / connected load	Approx. 500–1200 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 550 × 450 × 800 mm (W × D × H).
Instrument weight	Approx. 40–70 kg net.
Gross / shipping weight	Approx. 69–112.5 kg gross; estimated packing allowance.
Interfaces	USB communication port is available as standard.
Lab requirements	Suitable ventilation / process exhaust; external fan and duct loads are excluded from this preliminary estimate.

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	Melt mass-flow rate MFR (g/10 min)
Parameters selected for the method	Temperature, total load, die and cut interval
Verification points	Temperature profile, loads, timer and weighing

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.
- $MFR = 600 \times \text{extrudate mass(g)} / \text{cut interval(s)}$; MVR requires a separate displacement measurement.
- 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 1133-1 · ASTM D1238

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

Built-in automatic weighing and an MVR displacement system are not verified in the available source.

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 1133-1:2022 / 5.1.2-5.1.5, Table 2

1	Cylinder bore 9.550 ± 0.007 mm; piston head diameter 9.474 ± 0.007 mm and length 6.35 ± 0.10 mm; standard die length 8.000 ± 0.025 mm and bore 2.095 ± 0.005 mm. Temperature setting step no greater than 0.1 °C; setting resolution is not temperature accuracy.
---	---

ASTM D1238-10 / 5.4, 5.6, 5.7.6

1	Combined piston and load mass within $\pm 0.5\%$ of the selected load. Procedure A timer accuracy 0.1 s; extrudate balance capable of weighing to 0.001 g. Automatic piston-travel measurement requires the corresponding procedure and hardware.
---	---