

TXL-MBR-001 /

 27 October 2026 ·

 One-year manufacturer warranty

CryoBend — Cold Bending Tester

Cold bending resistance test for bituminous waterproofing membranes at sub-zero temperatures. Precise sub-zero temperature control, fast cooling system, touchscreen interface, robust industrial build. Temperature range: down to -30°C. Fully compliant with EN 1109. Used for reliable sub-zero resistance testing of building materials, membranes, and technical textiles.



Model technical data

1	Temperature range: -30 °C to +20 °C.
2	Temperature tolerance: ±0.5 °C.
3	Cooling system: compressor operated, CFC-free R404A refrigerant.
4	Insulated liquid cooling bath and standard bending mandrel.
5	Touchscreen interface.
6	Power: 220 V ± 10%.
7	Dimensions (W×D×H): approx. 500 × 1100 × 600 mm.
8	Weight: approx. 85 kg.

Physical specifications and utilities

Electrical supply	Power: 220 V ± 10%.
Power / connected load	Approx. 1500–3500 W connected load for preliminary planning.
Overall instrument dimensions	Dimensions (W×D×H): approx. 500 × 1100 × 600 mm.
Instrument weight	Weight: approx. 85 kg.
Gross / shipping weight	Approx. 118.5–131.2 kg gross; estimated packing allowance.
Lab requirements	Ventilated installation; purified water and drain for humidification options. Separate conditioning plant depends on order scope.

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	Crack assessment after bending at low temperature
Parameters selected for the method	Temperature, mandrel diameter, conditioning and bending arrangement
Verification points	Temperature, mandrel and motion

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.
- 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

EN 1109

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 1109:1999 / TS EN 1109:2002 / 5

1	Fixed rollers diameter 20 ± 0.1 mm; mandrel diameter 30 ± 0.1 mm; speed 360 ± 40 mm/min for a 180° bend. In this method the bath is controlled between +20 and -40 °C with 0.5 °C precision.
---	--