

TXL-MBR-004 / 27 October 2026 · One-year manufacturer warranty

EN 12310-1 Nail-Shank Tear Test Fixture

A fixture used with a tensile testing machine to assess the nail-shank tear resistance of bitumen sheets for roof waterproofing according to EN 12310-1. A specimen held by a nail shank is torn under tensile force. Fixture connection, specimen thickness and machine compatibility are confirmed in the order-specific technical specification.



Model technical data

1	Instrument type: passive nail-shank tear fixture for bituminous roof waterproofing sheets.
2	Reference-machine requirement: at least 2000 N load capacity and sufficient grip separation.
3	Method speed: 100 ± 10 mm/min; reference grip width at least 100 mm.
4	Stirrup, nail and connection geometry are defined by the fixture clause of the selected EN 12310-1 edition.

Physical specifications and utilities

Electrical supply	Manual / passive base apparatus; no mains supply assumed.
Power / connected load	Approx. 0 W connected load for preliminary planning.
Overall instrument dimensions	Approx. 200 × 100 × 200 mm (W × D × H).
Instrument weight	Approx. 2–5 kg net.
Gross / shipping weight	Approx. 4.2–8.2 kg gross; estimated packing allowance.
Lab requirements	Separate tensile machine of suitable capacity and a compatible grip interface are required.

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	Nail-shank tear force (N)
Parameters selected for the method	Test machine capacity, nail geometry and specimen direction
Verification points	Force, speed and fixture dimensions

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

EN 12310-1

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 12310-1:1999 / SIST EN 12310-1:2000 / 5.1-5.2, 8

1	Bituminous-sheet nail tear fixture: reference tensile machine at least 2000 N, grip width at least 100 mm and speed 100 ± 10 mm/min. Nail diameter in the stirrup 2.5 ± 0.1 mm. Assess the passive fixture's electrical needs separately from the reference machine.
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