



Tensile Testing Machine

Tensile

Working with Tensile Testing involves more than merely operating the equipment; it also requires sample preparation, data analysis, and interpretation of the resulting curves. The Tensile Tester is central to this process, providing essential tools for comprehensive material testing.



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Important Standards for Polymer Testing

Several relevant standards exist for the application, evaluation, and interpretation of tensile testing data in the polymer field. The tensile testing machine operates based on these standards to ensure accurate and reproducible results. A selection of standards commonly used for tensile testing of polymers is provided in the following table.

Standard	Description
General	
ASTM D638	Standard Test Method for Tensile Properties of Plastics
ASTM D882	Standard Test Method for Tensile Properties of Thin Plastic Sheeting
ISO 6259	Thermoplastics pipes – Determination of tensile properties
ISO 527-1	Plastics – Determination of tensile
ASTM E8	Standard Test Methods for Tension Testing of Metallic Materials
EN 10002	Metallic materials – Tensile testing



Tensile Specification

TestOnix®

- Load Capacity : 1 kN to 600 kN (varies by model)
- Load Accuracy : $\pm 0.5\%$ to $\pm 1\%$ of reading
- Crosshead Speed Range : 0.01 to 500 mm/min (adjustable, model-dependent)
- Speed Accuracy : $\pm 0.5\%$ of set speed
- Force Resolution : 1/150,000 of load cell capacity
- Grip Types : Wedge grips, pneumatic grips, hydraulic grips, manual grips
- Specimen Size : Varies (e.g., 1 mm to 200 mm diameter for tensile; customizable fixtures)
- Frame Type : Dual-column or single-column (dual-column more common for higher loads)
- Power Supply : 220 V, 50/60 Hz (single-phase or three-phase, depending on model)
- Software Features :
Real-time data plotting,
stress-strain curves,
yield strength,
exportable data
- Operating Temperature : 10°C to 40°C (50°F to 104°F)
- Accessories :
Grips,
fixtures,
environmental chambers,
extensometers,
calibration weights



Tensile Application

TestOnix®

- Capable of mounting low-capacity load cells to enhance measurement accuracy
- With capability to install various extensometers and furnaces
- With capability to install various jaws and fixtures via pin-type mounting
- With capability to perform: Tensile, Bending, Compression, Peeling, Tear, Relaxation, and Creep tests
- With capability to perform various tests on
 - Metals
 - bars
 - Strips
 - Plastics
 - all types of rubbers
 - industrial components



Innovative & Smart Testing

TestOnix®

