



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

- 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

- 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

Russia

Georgia
Georgian Pipe
Georgia Polymer

Tajikistan
Super plastic

Morocco
Agat Pro
Imacab
Rotomoulage Du Sud

Turkmanistan
Guwwas sp

Romania
Matt ecoinvest
Industrial Plastic Recycling

TestOnix®

Uzbekistan
Pooya polymer Cuzar
Maxsus Polimer Plant

Kosovo
Inova pipe

Qatar
Hepworth
Calibre

Jordan
Al Najah
University

Algeria
PE Plasfit

Van Plastik
Liva Plast
Mert demir Plastik

UAE
PV Tech Polymer

SBC Pipes
Northern Cyprus

Pakistan
Western Agri
products

Oman
Techno Pipe
Industries

Turkey
Yalçınlar
Netbor
Modalife
Yildiz polietilen
Betacompound
Kuzey Boru
Geoplas
Borlaib
Topuz Plastik
Isobor
Sapcioglu sondaj
STF Sulama
Aksanu
Ardent Plastik
Zirve Plastik
Kontas Plastik
MF Pipes
Merkimlab Yibbor
Ulkumen plastik

AES Alominyum
CimmaGen Ilaç
Ozden Plastik
Basar Makina
Polimar Kablomar
Akansu
Presmak Plastik
Sanbor
Ozdogan plast
Nigde Plastik
Kuzenler Boru

Iraq
Zhale Plastic
Elephant Pipe
Alpha steel
Soleimanieh con. Lab

Azerbajian
Azertexnoayn
Fin plast
High tech polymer