SCIENTICO INDIA

Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET

Catalogue reference for product evaluation

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Creep Testing Machine | FortiTestX - 14

Category: Strength of Materials · **Country of Origin:** India

Product Overview

A CE-certified creep testing machine for study of time-dependent deformation of metals under constant load at elevated temperatures, manufactured by Scientico India to ISO 9001:2015 standards. Supplied with calibration certificate, operation manual, and complete export documentation. Designed for Strength of Materials laboratories in engineering colleges and technical institutions.

View this product online: https://scienticoindia.com/product/creep-testing-machine-fortitestx-14/



Request a model-specific quotation

Include quantity and delivery country.

Technical Specifications

Technical Specifications

Field	Details
Product Name	Creep Testing Machine FortiTestX 14
Model Reference	FortiTestX 14
Product Category	Strength of Materials Lab Equipment
Apparatus Type	Benchtop creep testing machine for material creep behaviour investigation
Specimen Materials	Lead, Polypropylene (PP)
Specimen Cross-Section	2 x 5 mm
Specimen Measured Length	25 mm
Tensile Stress Range	2.5 to 35 N/mm²
Displacement Measurement Range	0 to 10 mm
Displacement Resolution	0.01 mm
Loading Method	Transmission lever with dead weight
Specimen Holder	Knife-edge bearings (no bending stress applied)
Temperature Control	Transparent conditioning box with thermal storage elements
Temperature Range	At and below room temperature

Field	Details
Optional Software	FX-14 (LabVIEW-based DAQ, Windows compatible)
Manufacturer	SCIENTICO, Ambala Cantt, India
Certifications	ISO 9001:2015, CE Marked

Technical Data, Specimens

Parameter	Value
Material	Lead, Polypropylene (PP)
Cross-Section	2 x 5 mm
Measured Length	25 mm
Tensile Stress Range	2.5 to 35 N/mm²

Technical Data, Displacement Measurement

Parameter	Value
Measurement Range	0 to 10 mm
Resolution	0.01 mm
Measurement Device	Dial gauge

Key Features

Key Features

- Complete creep testing machine strength of materials lab equipment unit: base plate, support pillar with adjustable end stop, transmission lever, load weight, dial gauge, conditioning box, cool pack, and thermometer all supplied
- Two specimen materials: flat lead and polypropylene (PP) specimens, both exhibiting acceptable creep rates at room temperature without elevated temperature requirements
- Specimen cross-section 2 x 5 mm, measured length 25 mm, tensile stress range 2.5 to 35 N/mm² for varied creep rate investigation
- Knife-edge bearings in specimen holders: ensure pure tensile loading with zero bending stress applied to the specimen during testing
- Dial gauge displacement measurement: 0 to 10 mm range, 0.01 mm resolution for precise elongation capture throughout the creep test
- Transparent conditioning box with thermal storage elements: enables creep experiments at and below room temperature
- Cool pack and thermometer supplied for temperature-controlled testing setups
- Supports demonstration of primary, secondary, and tertiary creep phases as well as temperature-dependent creep behaviour
- Optional DAQ software (FX-14): LabVIEW-based data logging and results processing on any Windows operating system
- ISO 9001:2015 certified manufacture; CE marked product

Experiments

- Creep experiment with a lead specimen
- Creep experiment with a polypropylene (PP) specimen

Construction and Design

Creep Testing Machine FortiTestX 14 is constructed as a compact, tabletop strength of materials lab equipment unit built around a rigid base plate supporting a vertical pillar with an adjustable end stop, a transmission lever, and a dead weight loading system. The lever mechanism applies a constant tensile load to the flat specimen, maintaining the selected stress level within the 2.5 to 35 N/mm² tensile stress range throughout the duration of the test. Specimen holders at both ends of the gauge length incorporate knife-edge bearings, ensuring that the load path is purely axial and that no bending moment is introduced into the specimen at any point during loading. A dial gauge with 0 to 10 mm range and 0.01 mm resolution is positioned to measure specimen elongation continuously. The transparent conditioning box with integral thermal storage elements encloses the specimen and holder assembly, enabling the ambient temperature around the specimen to be reduced below room temperature using the supplied cool pack. A thermometer is included to

monitor specimen temperature throughout the test. The clear and accessible layout of this creep testing machine allows all phases of the creep process to be observed directly during the experiment. All construction and materials conform to ISO 9001:2015 quality standards and meet CE marking requirements.

Software, FX-14 (Optional)

Customised software designed in the National Instruments LabVIEW environment for data logging and results processing. Compatible with any Windows-based operating system. The software is optional and selected independently of the base unit.

Scope of Delivery

- 1 x Set of specimens (lead and polypropylene)
- 1 x Cool pack
- 1 x Dial gauge
- 1 x Thermometer
- 1 x Stopwatch

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1: Which materials are tested in the Creep Testing Machine FortiTestX 14?
The FortiTestX 14 creep testing machine uses flat specimens of lead and polypropylene (PP), both of which exhibit measurable creep rates at room temperature, making them suitable for laboratory-scale creep experiments without the need for elevated temperature equipment.

Q2: How is load applied in the FortiTestX 14?
Load is applied through a transmission lever and dead weight system. The lever maintains a constant tensile stress on the specimen within the range of 2.5 to 35 N/mm² throughout the duration of the creep test.

Q3: How are bending stresses prevented during the creep test?
The specimen holders incorporate knife-edge bearings at both ends of the gauge length. These bearings ensure that the applied load acts in a purely axial direction, with no bending moment introduced into the specimen at any point during testing.

Q4: Can the FortiTestX 14 conduct tests below room temperature?
Yes. A transparent conditioning box with thermal storage elements is supplied with the creep testing machine. Using the included cool pack, the temperature around the specimen can be reduced below ambient, enabling temperature-dependent creep behaviour to be demonstrated and investigated.

Q5: What displacement measurement capability does the FortiTestX 14 provide?
Specimen elongation is measured using a dial gauge with a range of 0 to 10 mm and a resolution of 0.01 mm, providing precise and continuous displacement data throughout the creep test duration.

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