



GenTear Pro – Elmendorf Tearing Tester

Standards: [ASTM D1424](#), [DIN 53862](#), [ISO 9290](#), [EN ISO 13937-1](#), [ISO 4674-2](#), [M&S P29](#), [GB/T 3917.1](#), [ASTM D5734](#), [ASTM D689](#), [ISO 6383-2](#), [ISO 1974](#), [DIN 53128](#), [EN 21974](#), [JIS K 7128-2](#), [CSA D9](#), [BS 4468](#), [APPITA P 400](#), [NF G07-149](#), [GB/T 455](#), [JIS P 8116](#), [SCAN P11](#), [TAPPI T414](#), [UNI 6444](#), [GB/T 11999](#)



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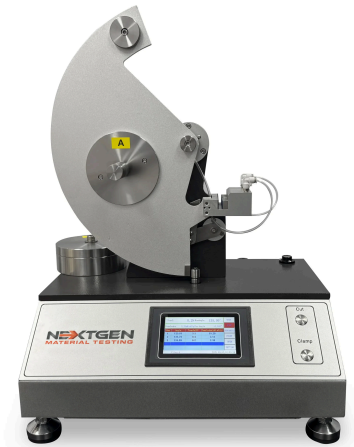
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Description

GenTear Pro is a digital Elmendorf tearing tester designed for precise tear resistance testing of textiles, nonwoven materials, paper, paperboard, and thin films. It gives laboratories a reliable way to evaluate tear propagation in flexible sheet materials for quality control, product development, and standards-based testing. With pneumatic specimen clamping, automatic sample cutting, multi-range force capability, touchscreen operation, and integrated reporting functions, GenTear Pro is built for consistent daily use in QC and R&D environments.

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Main Features

GenTear Pro combines the core functions expected in a modern tear resistance tester with a workflow designed for repeatable lab results and efficient day-to-day operation.

- **Multi-material testing:** Suitable for tear resistance testing of textiles, nonwoven fabrics, paper, paperboard, thin films, and other flexible sheet materials.
- **Multi-range force capability:** Supports test ranges of **16 N, 32 N, and 64 N** for broader material coverage and better application flexibility.
- **Pneumatic specimen clamping:** Helps improve clamping consistency and reduce variability associated with manual gripping.
- **Automatic sample cutting:** Improves notch consistency and reduces operator preparation time.
- **Touchscreen and PC control:** Simplifies setup, operation, result review, and data handling in routine laboratory work.
- **Integrated reporting functions:** Supports test calculation, statistical review, and printed output directly from the system.
- **Multiple unit options:** Supports force unit conversion between **N, gf, cN, and lb** to match different lab and standards requirements.
- **Compact lab-ready design:** Built for professional laboratory environments where reliable performance and efficient use of bench space both matter.



Applications

GenTear Pro is designed for laboratories and manufacturers that need accurate tear strength data for flexible sheet materials used in production, development, and specification control. Typical applications include:

- **Textiles:** Tear resistance testing for woven and related textile materials.
- **Nonwovens:** Performance evaluation of nonwoven fabrics in quality and development programs.
- **Paper and paperboard:** Tear testing for paper-based materials used in packaging, converting, and industrial applications.
- **Thin films:** Tear resistance evaluation for flexible films and similar sheet materials.
- **Quality control and material comparison:** Useful for incoming inspection, lot-to-lot comparison, product validation, and standards-driven testing.



Technical Specifications

GenTear Pro is configured for repeatable tear resistance testing in laboratories that need controlled specimen handling, reliable force measurement, and straightforward day-to-day operation. The specifications below outline the system's core performance and installation requirements:

Parameter	Value
Model	GenTear Pro
Control System	Touchscreen + PC control
Tearing Force Range	16 N / 32 N / 64 N
Accuracy	≤ ±1% F.S.
Incision Length	20 ± 0.2 mm
Tear Length	43 mm
Specimen Clamping Method	Pneumatic clamp
Output	Built-in printer
Power Supply	AC 220 V, 50/60 Hz, 100 W
Dimensions	22.0 × 16.5 × 18.9 in. (560 × 420 × 480 mm)
Weight	88.2 lb (40 kg)



Standards

GenTear Pro is designed for standards-based tear resistance testing across multiple material categories, including textiles, paper, plastics, and nonwoven materials. The standards below reflect the primary methods supported for these applications:

Material Category	Supported Standards
Textile	GB/T 3917.1; ASTM D1424; DIN 53862; ISO 13937-1; ISO 4674-2; ISO 9290; M&S P29; NF G07-149
Paper	GB/T 455; APPITA P400; ASTM D689; BS 4468; CSA D9; DIN 53128; EN 21974; ISO 1974; JIS P8116; PAPTAC D9; SCAN P11; SNV 198482; TAPPI T414; UNI 6444
Plastic	GB/T 11999; ISO 6383-2; JIS K7128-2
Nonwoven	ASTM D5734

Standard Accessories

GenTear Pro is supplied with the core components needed for setup and routine operation.

- **Pendulum B:** 16 N
- **Pendulum C:** 32 N
- **Sample Template:** 1 pc
- **English Operation Software:** 1 set
- **PC Connection Cable:** 1 pc

Optional Accessories

Optional accessories are available to support different lab setups and operating preferences.

- **Air Compressor**



- Desktop Computer

Need Help Selecting the Right Tear Testing System?

If you are evaluating tear resistance testing equipment for textiles, paper, film, or nonwoven materials, NextGen Material Testing can help you identify the right configuration for your lab. Send us your material type, target standards, testing range, and workflow requirements, and our team will help you review the best fit, answer technical questions, and provide a quote based on your application.

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