ASTM D4833 Puncture Fixture

Index Puncture Fixture for Geomembranes

Built to ASTM D4833 — Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products



OVERVIEW

Puncture fixture for index puncture resistance of geomembranes and related products. The specimen is clamped between rings over an open cylinder while a flat-ended steel probe with a chamfered edge is driven through it by the test machine, recording the maximum force required to puncture the sheet.

KEY FEATURES

- Ring clamp holds the specimen without slippage during puncture
- Hardened steel probe with chamfered flat end per ASTM D4833
- Probe guided concentric with the clamping ring for centered loading
- Quick-release clamp for efficient specimen changes
- Mounts in compression on any universal test machine

TECHNICAL SPECIFICATIONS

Test method	Index puncture resistance
Test type / loading	Compression-driven probe puncture
Specimens	Geomembrane or geotextile sheet, per ASTM D4833
Load capacity	5 kN standard; higher capacities on request
Fixture material	Hardened steel probe; steel clamp ring, corrosion-resistant
Probe	Flat-ended steel rod with chamfered edge, per standard
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical universal test machines

APPLICATIONS

- HDPE and LLDPE geomembranes
- PVC and flexible membrane liners
- Geotextiles and geocomposites
- Landfill and containment liner QC

ABOUT THE STANDARD

ASTM D4833 is an index test for the puncture resistance of geomembranes, geotextiles and related products. A clamped specimen is punctured by a small-diameter, flat-ended steel rod driven in compression until rupture. The maximum force is reported as puncture resistance. It is intended for quality control and acceptance testing, not as a design parameter.

Ordering & customization: Specify material thickness, required capacity and test machine connection when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures.
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