

ASTM F1306 Puncture Fixture

Slow Rate Puncture Fixture for Flexible Barrier Films

Built to ASTM F1306 — Standard Test Method for Slow Rate Penetration Resistance of Flexible Barrier Films and Laminates



OVERVIEW

Puncture fixture for slow-rate penetration testing of flexible films and laminates. The film is clamped across a circular opening and a hemispherically tipped probe is driven through it at a constant rate, recording force and elongation to break and the energy needed to penetrate the material.

KEY FEATURES

- Clamping ring holds film flat without pre-tension
- Hemispherically tipped, polished penetration probe
- Concentric probe-to-opening alignment
- Quick-release clamp for fast specimen changes
- Mounts directly to load cell and machine base

TECHNICAL SPECIFICATIONS

Test method	Slow rate probe penetration
Test type / loading	Compression-driven probe puncture
Specimens	Flexible film and laminate samples, per ASTM F1306
Load capacity	500 N standard; higher capacities on request
Fixture material	Stainless steel probe; aluminum or steel clamp
Clamping	Circular clamping ring with non-slip faces
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical universal test machines

APPLICATIONS

- Food and medical packaging films
- Multilayer laminates and pouches
- Barrier film development
- Packaging QC testing

ABOUT THE STANDARD

ASTM F1306 measures the resistance of flexible barrier films and laminates to slow-rate penetration by a driven probe. The specimen is clamped without tension, then punctured at a constant rate while force and displacement are recorded. Results include force, elongation and energy to break, used to compare packaging materials' resistance to puncture.

Ordering & customization: Specify film thickness range, required capacity and 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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