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FILM PERMEABILITY TESTER - GTR / OTR / WVTR ANALYZERS



Oxygen / Water Vapor / Gas Permeability Tester and Transmission Rate Analyzers for Films and Finished Packages

Qualitest covers a complete and competitive range of Permeability Testers and GTR / OTR / WVTR Transmission Rate Analyzers and consumables for Film and Finished Packages.

Film Permeability Tester - GTR / OTR / WVTR Analyzers

Film Permeability Tester - GTR / OTR / WVTR Analyzers help packaging and materials teams validate barrier performance with repeatable results and a consistent testing workflow across operators. Choose the right method and control features to support reliable QC release decisions and faster R&D screening. Use the table below to compare the best option for your lab.

Comparison Factor	OTR (Oxygen Transmission Rate) Analyzers	GTR (Gas Transmission Rate) Analyzers	WVTR (Water Vapor Transmission Rate) Analyzers
Measures	Oxygen transmission rate (OTR)	Gas transmission rate (GTR)	Water vapor transmission rate (WVTR)
Test principle / sensor	Coulometric oxygen sensor method	Differential pressure method	Infrared method (Q401/Q413) or Gravimetric (weight-loss) method (Q301/Q303)
Typical standards called out	ASTM D3985	ASTM D1434; ISO 2556	ASTM F1249 (IR); ASTM E96/E96M + others (gravimetric models)
Cell / chamber options	1 cell (QT-Q110) or 3 cells (QT-Q310) (varies by model)	1 cell (GTR500) or 1-3 samples (GTR530) (varies by model)	1 cell (Q401), 3 cells (Q413), or 1-3 station gravimetric variants (varies by model/method)
Temperature control range	15-45 °C	15-60 °C	Q401: 15-45 °C; Q413: 15-45 °C (15-60 °C optional); Q301/Q303: 15-55 °C
Sample size / thickness	Φ100 mm; ≤3 mm	Φ110 mm; ≤2 mm	Q401/Q413: Φ100 mm; ≤3 mm; Q301/Q303: Φ90 mm; ≤3 mm

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Test gas	Carrier gas N ₂ noted on OTR specs	O ₂ , CO ₂ , N ₂ , etc.	Carrier gas 99.999% N ₂ (Q401/Q413)



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Contact our **QualiTeam** today to find out how we can help your organization **select the most suitable testing solution** for your application, requirements, and budget.

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