



PERMATRAN-W® MODEL 101 K WATER VAPOR PERMEATION ANALYZER

Ultra-High Transmission Range Water Vapor Permeation Instrument

The PERMATRAN-W Model 101K is an automated 6-cell Water Vapor Transmission Rate (WVTR) instrument that effectively and accurately measures the moisture permeability of breathable barriers. The unique design allows measurement of permeation under actual environmental conditions these barriers are likely to experience. It is designed for high transmitting moisture barriers in the range of 500 to 100,000 g/(m² · day) and is the only instrument that conforms to the ASTM D6701 standard.

Accuracy at High Transmission Levels

Obtaining accurate and repeatable results when testing highly permeable materials is a challenge. Traditional Gravimetric methods such as ASTM E96 have issues with loss of driving force due to the air gap between the moisture source and the sample, resulting in erroneous and inconsistent test results. The PERMATRAN-W 101K utilizes a modified inverted water cup concept to eliminate the air gap problem and maintain constant 100% relative humidity (RH) driving force throughout the test period. The precision RH sensor on the carrier gas side provides accurate results. The automated system maintains consistent conditions throughout the tests yielding repeatable results without operator intervention. Additionally, a calibration film designed specifically for this instrument is available to help ensure accurate test results.

PERMATRAN-W MODEL 101 K

Application Solutions

The 101K is ideal for measuring WVTR in materials such as porous and breathable polymer membranes, thin paper with polymer coatings and thin polymer nonwovens (with non-textured surfaces). Such barriers are common applications in the healthcare industry in the form of diapers and bandages, and in the construction industry as moisture barriers (house wraps) and soil control.

Accessories

- PermWare® software for data collection and remote monitoring

MOCON's WinPerm™ Permeability software is designed for speed and ease of use. Features include:

- Quickstart – Quickly choose standard ASTM, ISO, JIS or user defined test conditions and immediately begin testing
- Pre-programmed test set-up may be saved and recalled for later use
- Test results are automatically converted to Excel format for export and further data manipulation
- Test results are available in individual detailed or multi-test summary format
- Compatible with PERMNET™, our powerful test and data management system

ASTM D6701 cites the 100K, predecessor of the 101K, as the only known instrument to comply with the method. The 101K provides the most accurate and repeatable permeation results for your high transmitting barriers.

Test Conditions

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| Temperature Control Range: | 20°C to 50°C ± 0.5°C |
| Humidity Control, Film Cell, Test Gas: | 100% |
| Test Range, Film Unmasked (10 cm ²): | 500 to 100,000 g/(m ² · day) 32.3 and 6450 g/(100in ² · day) |
| Resolution, Film: | 1 g/(m ² · day) |
| Repeatability, Film: | 1% |

Exterior Dimensions

Depth: 26" or 66.4 cm
Width: 12" or 30.4 cm
Height: 12" or 30.4 cm
Weight: 63 lbs. or 28.6 kg

Connectivity

Dual RS 485 ports

Industry Standards

ASTM D 6701



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