

Fully automated, reduced testing times
water vapor transmission rate test system

PERMATRAN-W® Model 3/34G

ASTM F-1249. TAPPI T557. JIS K-7129. ISO 15103-2.

Water vapor transmission rate (WVTR) testing. Fully automated with reduced testing times.

Features and Benefits

- TotalCal™
- Stand alone with integrated computer
- Intuitive touch screen interface
- On-board data storage
- Fully automated testing
- Advanced testing with manual control
- Faster time to results
- Faster set up
- Easy film placement
- Horizontal pneumatically clamped test cells
- Auto control of RH, pressure and flow
- Auto temperature control
- Auto sequential testing
- Auto test save and printing
- Package testing adapter (Optional)
- High purge rate for packages
- Fast, simple change from wet to dry testing
- TruSeal® test cell
- Ethernet and USB ready
- Gas saver
- Sensor over-range protection
- Circuit board protection
- Built in calendar
- Remote diagnosis
- Individual Zero obtained on actual sample

** Film type dependent



For over 20 years the PERMATRAN-W series has set the standard for water vapor transmission rate testing for barrier films, packages and components. Building on the knowledge gained from these years, the Model 3/34G is a WVTR instrument that's faster, easier to use, with accurate repeatable results and a lower cost of ownership.

The PERMATRAN Model 3/34G is ideal for food, pharmaceutical, medical device companies, film converters, resin and chemical converters and consumer product manufacturers who test WVTR barriers and need fast accurate results.

This instrument features TotalCal™ which eliminates the need to select the calibration to be used when conducting a test. Regardless of the level of transmission rate for a test film, TotalCal assures an error-free and accurate result... everytime. This instrument measures barrier films, accurately and repeatably down to 0.005 g/(m² · d) at precise temperature and RH conditions created and controlled automatically. The TruSeal cell provides increased accuracy and repeatability in this range.

Laboratories that test unknown films will appreciate the fully automatic testing mode. Simply place the film, set RH and temperature, start the test and the instrument will determine the parameters and conduct the test automatically.

Advanced users have full access to manually set all test parameters in the advanced testing mode.

The PERMATRAN-W Model 3/34's features and benefits include:

Ease of use:

- Fully automated testing
- Advanced manual testing control
- Automatic controls of RH, temperature, pressure and flow of both carrier and test gases
- Control via touch screen and/or remote computer
- Simple access to stored test data
- Horizontal pneumatic cell drawers with lift out cells for simple film placement

Faster speed to result:

- Reduced time to confirm equilibrium
- Elimination of individual zero**
- High purge rate for packages to reduce package testing times

Lower cost of ownership:

- Protected circuits
- Gas saver mode
- Schedule maintenance
- Remote diagnostics

Specifications

Range:

$\text{g}/(\text{m}^2 \cdot \text{d})$	$\text{g}/(100 \text{ in}^2 \cdot \text{d})$	$\text{g}/(\text{pkg} \cdot \text{d})$
0.005 - 100	0.0003 -6.45	0.000025 -0.5

Repeatability:

$\pm 0.005 \text{ g}/(\text{m}^2 \cdot \text{d})$ or 2% of reading whichever is greater at 50 cm^2

Resolution:

0.001 $\text{g}/(\text{m}^2 \cdot \text{d})$

Temperature test range:

10 C to 40 C ± 0.2 C

Film test cells per module:

2 x 50 cm^2 (pneumatic clamping cells)

Package testing:

Optional package testing adapter cells available

Relative Humidity Range (RH):

Films - 0%, 5% to 90% and 100%

Test gas - Not controlled by instrument - Use Dry Nitrogen

Packages - Ambient

Test sample size:

Films - 4.0" x 4.0" (10.2 cm x 10.2 cm)

Packages - Up to 3 liters per package

Test database:

Automatically saves up to 100 tests

Automatic sequential testing:

With one set up, test 10 different RH and temperature parameters for the same film

User interface:

Touch screen with optional keyboard and mouse,
remote access capable with optional PermNet® Lite.
Ethernet and USB ready

Standards

Standards:

ASTM F-1249

JIS K-7129 Films

TAPPI T557

21 CFR Part 11 compliant

Validation service available

TruSeal flush ring test cell:

MOCON's patented TruSeal flush ring at the perimeter of the film ensures a leak-free seal every time.

MOCON's technology reduces the time to result:

Each user will experience different time savings due to unique film and test conditions.

A user testing a flat film may eliminate the need to obtain an individual zero, a process that typically doubles the testing time.

Other users, who conduct a number of convergent tests to confirm equilibrium, will find the PERMATRAN- W Model 3/34 substantially reduces the total testing time. MOCON cannot warrant the exact time each user will save. Talk to your MOCON representative to better understand how this technology will impact your testing.

N.I.S.T. films are available to ensure the entire system is performing to the highest MOCON standards in precision and accuracy.



Home Screen

Users will appreciate the intuitive touch screen interface and the option to monitor and control from either remotely or at the touch screen.

MOCON® Commitment

These analytical instruments are another example of MOCON's long-standing commitment to innovation and quality in the support of our customers.

Technical Support & Service

MOCON offers a variety of technical services designed to provide you with first class support. Whether you require technical support, next-day spare parts delivery, on-site training, N.I.S.T. certification or "turn-key" validation, our staff can tailor a service program to fit your needs. Our goal is to provide the best in product support services.

MOCON, Coulox, TruSeal and OX-TRAN are registered trademarks of MOCON, Inc.

MOCON reserves the right to change specifications without notice as part of our continuous program of product improvement.



763.493.6370 | info@mocon.com

www.mocon.com

Headquartered in the United States
Offices Worldwide