

# Water Vapor Transmission Rate (WVTR) Measurement by AQUATRAN

## Summary

AQUATRAN is the valuable apparatus to evaluate water vapor transmission rate (WVTR) of ultra-high-barrier films for electronic devices which require the very high level of the water-free condition.

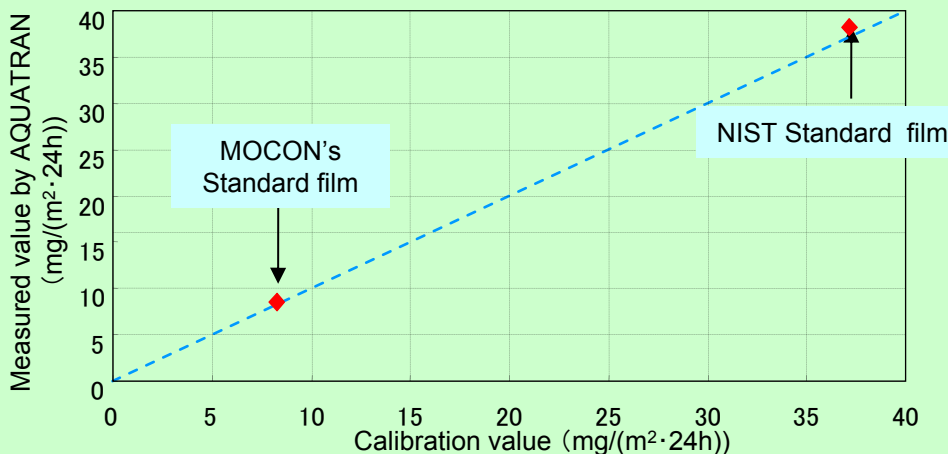
ANAC has developed the technology with AQUATRAN so that  $10^{-4}$  level of WVTR can be measured.

## Apparatus

Apparatus	AQUATRAN MODEL-1 MOCON	CUP method	PERMATRAN W3/31 MOCON
Method	Equal-pressure ISO 15106-3	Equal-pressure JIS Z0208 ASTM E96 ISO 2528	Equal-pressure JIS K7129 ASTM F1249 ISO 15106-2
Permeability Range	0.0005-5 g/(m <sup>2</sup> ·24h)	1.0-400 g/(m <sup>2</sup> ·24h)	0.01-600 g/(m <sup>2</sup> ·24h)
Temperature Range	10-40 °C	23-40 °C or 40-80 °C <sup>1)</sup>	23-50 °C
Relative Humidity Range	35-90 % or 100 %	50-90 %	35-90 % or 100 %
Sample Shape	Film or Sheet (<1mm)	Film or Sheet (<1mm)	Film or Sheet (<1mm)

Note : 1) This range is not defined in any standards.

## Example : The results of standard films for WVTR measured by AQUATRAN



Mitsui Chemical Analysis & Consulting Service, Inc.

E-mail: [sod-mcanac@mitsuichemicals.com](mailto:sod-mcanac@mitsuichemicals.com)

<http://www.mcanac.co.jp/>