

W413 2.0 Water Vapor Permeability Analyzer



Application

W413 2.0 water vapor permeability analyzer is designed to test the water vapor transmission rate (WVTR) of films or sheets materials.

Applied to:

- 1) Plastic film, composite film, aluminum foil, aluminized film, etc;
- 2) Sheet, panel, rubber, ceramics, etc;
- 3) Packaging containers, such as: glass, bottle, cans, boxes, etc;
- 4) Expanding application: solar panel, LCD film, medical patch, etc.

Widely used in quality inspection organizations, drug control institutions, research institutes, packaging, thin film, food companies, pharmaceutical enterprises, personal care industry, electronics industry and so on.

Standards

ASTM F1249-2013, BS EN ISO 15106-2-2005, TAPPI T557, GB/T 26253-2010, YBB 00092003-2015, JIS K7129-2008

Specification

Item	Technical parameters
Test range	0.002 ~ 100 g/m ² ·24h (film and sheet)
Test precision	0.001 g/m ² ·24h (film and sheet)
Temperature range	15 ~ 45°C (15 ~ 60°C optional)
Temperature accuracy	±0.1°C
Humidity range	5 ~ 90%RH, 100%RH
Humidity accuracy	±1%RH
Test area	50.24 cm ² (optionally as small as 0.785 cm ²)
Sample size	Φ100 mm
Sample thickness	≤ 3 mm
Number of test sample	1~3 pieces
Carrier gas	99.999% N ₂ (user provide)
Carrier gas pressure	≥ 0.1MPa
Carrier gas flow	5 ~ 100 mL/min
Pneumatic pressure	≥ 0.3MPa
Instrument size	700 × 65 × 390 mm
Weight	55 kg
Power	750W
Power supply	AC 220V, 50Hz

Features

➤ Accurate and reliable data

- ◆ With *The State Certificate for Gradation of the certified Reference Materials* and Licence for Manufacturing Measuring Instruments of *the state Reference Material* (GBW(E)130543/4) of Water Vapor Permeability Analyzer approved and issued by General Administration of Quality Supervision, Inspection and Quarantine of the PRC. Adopting state reference materials to calibrate and verify the instruments, ensure the accuracy, universality and authority of the test data.

➤ Simple operation

- ◆ Professional software with simple interface, easy to use and flexible to set test process.
- ◆ Fully-auto operation, one-button test, judge and stop automatically.
- ◆ Real time curves display permeability volume, flow rate, voltage, temperature and humidity. The curves with conceal function, support query function for background data.
- ◆ The tester is equipped with a 11.6" color touch screen, can observe temperature, humidity and transmission, without external computer.
- ◆ Professional test report can be automatically generated and exported in PDF format.

➤ Advanced technology

- ◆ Temperature control: Semiconductor chilling plate to control the temperature automatically, auto heating and cooling; no need of external accessories. Precision: 0.1°C.
- ◆ Humidity control: Dual gas flow method (dry gas and humid gas), high precision (1%RH) and stable flow.
- ◆ With functions of electronic signature, online report submission, and review.
- ◆ It could connect to IoT platform to realize digital network management.

➤ **High efficiency**

- ◆ **Three independent test chambers:** With three sensors and each chamber test independently, three same/different samples can be tested at the same time and output three test reports, which improve test efficiency.
- ◆ With three different test modes of high, medium and lower barriers, can test films with different barrier property.
- ◆ Measurement precise up to 0.001 g/m²·24h, can test high barrier materials, such as aluminum foil.

➤ **Authority management & data trace**

- ◆ The software is designed according to the requirements of the computerized system of the new GMP Appendix.
- ◆ User name and password are required to log in to the workstation, to ensure the safety and effectiveness of account and experiment data.
- ◆ Users can be classified into different levels of system administrator, instrument administrator, auditor and operator.
- ◆ The system administrator can adjust the permissions of various levels, for example, increase and decrease system control items of any level.
- ◆ With audit track function every data change is recorded, make sure test data are safe and complete.

➤ **Stable, reliable and easy to maintain**

- ◆ The infrared sensor has high precision, good stability and can run for a long time.
- ◆ Over-range automatic protection for the sensor could prevent damaging important sensors while instrument has failures.
- ◆ Functional modular design, easy to maintain.

Note: GBPI is always committed to product innovation and improved performance, so accordingly product technical specifications are subject to change without notice.