

W202 Water Vapor Permeability Analyzer



Application

W202 water vapor permeability analyzer is 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.

Standard

Specification

Item	Technical parameters
Test range	0.001~50 g/(m ² ·24h) (film and sheet)
Test precision	0.01-1000 (optional) 0.001 g/(m ² ·24h) (film and sheet)
Temperature range	15~45°C
Temperature accuracy	±0.1°C
Humidity range	30~90%RH, 100%RH,
Humidity accuracy	±1%RH
Test area	50.24 cm ²
Sample size	Φ100 mm
Sample thickness	≤3mm
Number of test sample	2 pieces
Carrier gas	99.999% N ₂ (user provide)
Carrier gas pressure	≥0.1MPa
Carrier gas flow	0~100 mL/min
Gas supply port	1/8 inch metal pipe
Instrument size	680×520×400mm
Weight	90kg
Power	500W
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 Materials* (GBW(E)130543/4) of Water Vapor Permeability Analyzer approved and issued by General Administration of Quality Supervision, Inspection and Quarantine of the P.R.C. 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 convenient to set test process.
- ◆ Fully-auto operation, one-button test, judge and stop automatically.
- ◆ Programmed auto-control, the experiment status display in real time.
- ◆ Real time curves display of transmission, water vapor concentration, temperature and humidity. The curves with conceal function, support query function for background data.
- ◆ Configure with color touch screen, can observe temperature, humidity and transmission without external computer.
- ◆ Professional test report; can be exported as PDF.

➤ Advanced technology

- ◆ Temperature control: International advanced electromagnetic technology, program controlled, auto heating and cooling; and 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.
- ◆ Carrying cutting-edge ARM controlling system, can run independently without computer.

➤ **High efficiency**

- ◆ Two independent test chambers with two sensors: Each chamber test independently, two same/different samples can be tested at the same time and output two test reports, which improve test efficiency, one set is worth two sets.
- ◆ 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.
- ◆ By adding adaptive accessory, can test water vapor transmission of various containers such as bag, bottle, can and bowl.

➤ **Calibration & Certification**

- ◆ The instrument supports two methods of reference materials and standard gas to calibrate and certificate; operation is simple, user only need use certified reference materials for normal testing, and then input the test result into the instrument interface.

➤ **Reliable and easy-maintenance**

- ◆ Imported Electrolytic detection sensor, with high precise and good performance, can work for a long time.

- ◆ Sensor over-range auto protection.
- ◆ Function modularization, easy to maintain.

Configuration List

A、 Spare parts			
NO.	Name	Remark	Quantity
1	Power cable	3*0.75 10A 1.8M	1 PC
2	Communication cable	RS232nine-pin data cable	1 PC
3	Sample cutter	Sample diameter 100mm(Tly-0.01)	1 PC
4	Sealing grease	HFV-GS(HFV-GS 70g)	1 PC
5	Metal air pipe	1/8" (OD) *2.1mm.SS316	5M
6	Ferrule connector	1 piece of MC-01-01NPT 1/8	2 PCS
7	Straddle wrench	1 piece of MC-01-02 NPT 1/4 12mm	1 set
8	Allen wrench	M10/ M3	1 PC
9	Cross screwdriver	6-10mm	1 PC
10	Injection syringe	Medical disposable 1 ML	1 PC
11	Sealing circle	φ12	4 PCS
	Sealing circle for injection		1 PC
12	Reference material	125μm	1 Set

13	Mouse		RAPOO M10	1 PC
14	Wooden box			1 PC
B、 Optional parts				
NO.	Name	Unit	Quantity	Remark
1	Computer			Optional
2	Metrology Certificates			Optional
C、 User provide				
1	High purity above 99.999% , 1 bottle of 40 L bottled nitrogen			
2	Laboratory requirements: ordinary laboratory with air conditioner, temperature stable at 23°C±2			
3	Power supply: 220V 1 piece of three-hole switch socket with three-position			
4	Computer requirements: standard configuration (Windows7 with nine-pin serial port)			
5	Experimenter requirements:1-3 test operators with secondary vocational education or above, with equivalent computer knowledge.			
6	Drying vessel (all samples must be degassed and dehydrated for 24 hours)			
7	Air compressor: connect :6 mm pressure 0.8MPA			
8	Power supply should be properly grounded			

Note: GBPI is always committed to product innovation and improved performance, so accordingly product technical specifications are subject to change without notice. GBPI reserves the right to amend and the final power of interpretation.