

W303 2.0 Gravimetric Method Water Vapor Permeability Analyzer





Product introduction

The W303 WVTR tester is designed and produced based on the test principle of weight method (weight reduction) and as per the standards of GB/T 1037 and ASTM E96, etc. It is suitable to measure the water permeability performance of film, sheets, papers, packagings and other related materials in the industries of food, pharmaceutical, medical equipment, daily chemicals, Photovoltaic electronics, etc, providing wide range and high efficiency water vapor transmittance detection for high, medium and low water vapor barrier materials.

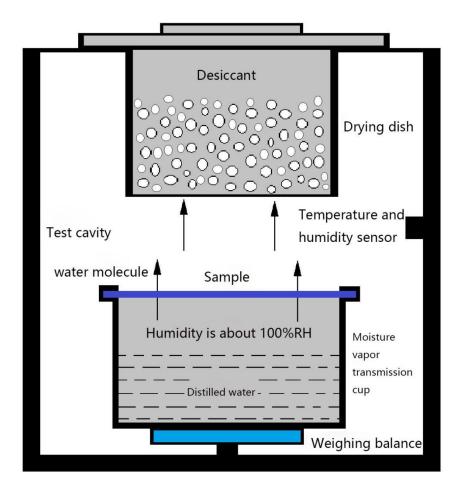
Test principal

Adding distilled water to a dry, clean test dish, put the test dish sealed by pre-processed sampl into the test chamber, by controlling temperature and humidity, make the distilled water in the test dish evaporate, the evaporated water vapor is absorbed by the drying device through the film, by measuring decreasing weight change of distilled water in the test dish over time, obtain the parameters of water vapor permeability of the sample, etc.









Working principle diagram

Weight loss principle diagram

Standards

GB/T 1037、GB/T 16928、ASTM E96/E96M、ASTM D1653、TAPPI T464、ISO 2528、

DIN 53122-1, JIS Z0208, YBB 00092003

Technical Parameters

Item	Technical parameters
Test range	0.1~10000 g/(m2·24h)
Test precision	0.001 g/(m2·24h)
Temperature range	15~55°C







Item	Technical parameters
Temperature accuracy	±0.1°C
Humidity range	≤10%RH dry method
Humidity accuracy	±2%RH
Test area	50.24 cm2
Sample size	Ф90 mm
Sample thickness	≤3mm
Number of test sample	3 pieces
Power	1300 W
Power supply	AC 220 V, 50 Hz

Product Features

High accurate weighing sensor

The instrument is equipped with high-precision weighing sensor, which is with high weighing efficiency, stable performance, high precision, resolution up to 0.001 g/(m2 · 24h).

Precision control of temperature and humidity

Electromagnetic program stepping technique controls the temperature accuratel, imported temperature and humidity sensor automatically heat and cool with temperature control accuracy $\pm 0.1^{\circ}$ C and humidity accuracy $\pm 2\%$ RH.

◆ Meeting the test requirements of high throughput, wide range and high applicability

The instrument is equipped with 3 chambers with independent datas, which can meet the requirements of high throughput testing and testing efficiency is high.

Wide measuring range 0.1~10000 g/(m2 · 24h) meets the testing demand of high, medium and low barrier materials. By using customized fixtures also can measure the water vapor transmission of bottles, bags, bowls and other packaging parts.







• Outstanding shape, easy operation, real time visual curve

The product is designed from the Angle of ergonomics and technical aesthetics,

Exquisite 3D printed shell, smooth lines, beautiful fashion, novel and unique.

Automatic operation, one key test, automatic judgment, automatic shutdown.

Real-time display four groups of curves of transmittance - time, temperature - time, humidity - time, weight - time, curves support preview hiding function.

◆ Intelligent operating system, global certification

Self-developed intelligent operating system, modular graphics, fashion color matching, humanized Settings, intuitive and convenient operation

According to the GMP appendix computer system design, the test process parameters can be set flexibly to meet different standard requirements.

Audit trace functions (log trace, test trace) can meet the requirements of data traceability, the system operation permission can be set at different level.

Intelligent statistical analysis, support multiple data standard deviation analysis, at the same time, the system can be expanded, such as access to laboratory LIMS system.

Personalized test report can be set as required, supporting multiple formats of data output. Support electronic signature, online submission of audit report function.

Global strength certification, Chinese and English language can be set as require.

◆ Offline or online detection







The instrument has its own operating system, can do the testing independently without computer and automatically process the datas. The instrument is equipped with a computer interface and can also be connected to a computer for online detection.

◆ Professional calibration service, data is accurate and reliable

Our company has "National Standard Material Grading Certificate" and "Manufacturing Measuring Instrument License of the People's Republic of China" for water vapor transmission rate analyzer issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, The reference material no is GBW(E)130543 / GBW(E)130544. The instrument is calibrated and verified by national standard materials developed independently to ensure the accuracy, versatility and authority of the test data.

◆ Laboratory intelligent IoT platform

The instrument can be connected to IoT platfor, achieve digital network management. Remotely log in to the iot platform and authorize access to the instrument's software interface, which can achieve the functions of management of experimental data and remote diagnose and troubleshooting and other functions.

Customers can download the required instrument information, documents and operation videos on the platform.

Application



Film

Water vapor permeability tests of membrane materials such as All kinds of plastic film (PP/PET/PE/PVC/BOPP/CPP, etc.), plastic composite film, paper-plastic composite film, metal composite film, co-extrusion film, aluminum plating film, degradable packaging film







	(PLA/PBAT/PBS, etc.), etc.
Sheet	Water vapor permeability tests of solid pharmaceutical hard sheet (PP/PVC/PTP, etc.), metal composite sheet, rubber sheet and other sheet materials.
Paper, paperboard and composite materials	Water vapor permeability tests of Coated paper, silicone paper, cigarette aluminized paper, paper aluminum-plastic composite sheet, paper board.
Medicinal patches	Water vapor permeability tests of medical plaster for treatment.
Package	Customizable fixtures can be extended to packages such as pharmaceutical polyethylene bottles, sealed bags, pharmaceutical ointment tubes, infusion hoses, plastic trays, etc.

Factory configuration

Standard	Power cord, Scale + syringe, wet cup, sampler, Sealing grease, standard	
configuration	weights, 4A molecular sieve, Serial cable, Hex Wrenches, mouse, 125µm	
	standard film, wire and aviation socket welding kit, cross screwdriver.	
Optional	Computer, calibration certificate	

Note: Guangzhou Biaoji has always been committed to the innovation and improvement of product performance and function. For this reason, product technical specifications and appearance will also be changed accordingly. The above situation will not be notified. The company reserves the right of modification and final interpretation.









Service Commitment

- Free packaging inspection technical support.
- One-year warranty for instrument, free software upgrade service, and lifetime free technical support.
- Free to the factory to train the operation of the instrument, qualified people issued graduation certificates, free accommodation and food.
- Instrument "trade-in" policy and provision of backup instruments in case of failure.
- There is a testing center (CNAS L8185) to provide incoming sample testing and sample. data comparison services
- Set up a Reference Standards Development
 Center to provide calibration services.

Company Introduction

Guangzhou Biaoji Packaging Equipment Co., Ltd. was established in 2002 and located in Guangzhou Economic Development Zone. It is a company integrating R&D, production and sales of packaging testing instruments, packaging equipment, modified atmosphere preservation equipment and other products, as well as providing third-party testing and standard material proficiency testing. It is committed to providing comprehensive, professional and high-quality products and technical services for packaging, food, medicine, testing and other industries.

Write industry standards with quality, and become the leader and leader in the field of global packaging testing. The 80,000-mile journey is sailing, and Guangzhou Biaoji will escort you!







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Website QR code

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