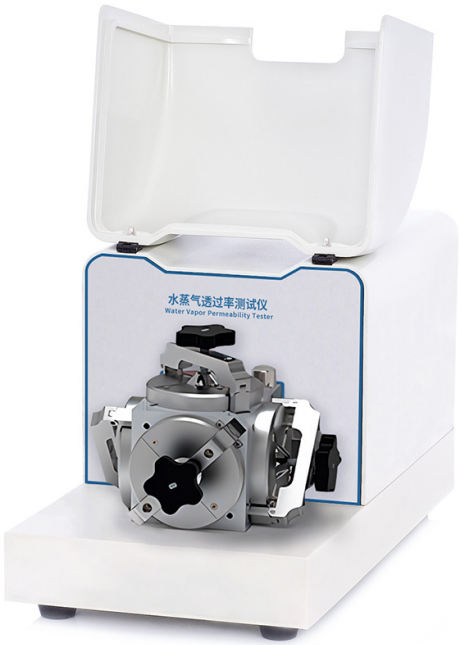
WPT-204 Water Vapor Permeability Tester

WPT-204 Water Vapor Permeability Tester is based on the infrared test principle, providing a wide range and high efficiency water vapor transmission rate detection for medium and high barrier materials, suitable for plastic films, composite films and other films, sheet materials and medical, Measurement of water vapor transmission rate of various high barrier materials in the field of building materials.



Features

High-precision infrared moisture sensor improves the accuracy and stability of the test

High-definition LCD touch screen, more intuitive content and easier operation

The four test chambers are completely independent, which can test four same or different samples at the same time

A test chamber is used as a reference chamber to determine whether the test standard film data is accurate

Three test chambers are used to test samples, ensuring that three parallel samples can be tested at one time

Wide range, high precision, automatic temperature and humidity control, to meet the test under various test conditions

Unique test structure, three chambers are tested under the same temperature and humidity to ensure the consistency of test conditions in different test chambers

Test results support multi-format storage and data output, including experimental report Excel, cloud sharing

The product conforms to the multi-level authority of GMP users

Single and group statistical analysis of test results can be performed

With ISP online control and upgrade function, the test function can be changed remotely as required

Special computer communication software, which can perform real-time display of the test, analysis and processing of data, and data storage

Principle

The instrument adopts the testing principle of infrared sensor method. The sample to be tested is clamped between dry and wet chambers with constant temperature. There is a certain humidity difference on both sides of the sample. Due to the existence of humidity gradient, water vapor will flow from the high humidity chamber to the low humidity chamber. Cavity diffusion, in the low humidity chamber, the water vapor is carried to the infrared sensor by the carrier gas, and an electrical signal of the same proportion will be generated when entering the sensor. Through the analysis and calculation of the electrical signal of the sensor, the water vapor transmission rate and moisture permeability of the sample can be obtained. coefficient.

Standards

ISO 15106-2, ASTM F1249, GB/T 26253-2010, TAPPI T557, JIS K7129, YBB 00092003-2015

Applications

Film	Including plastic films, plastic composite films, paper-plastic composite films, geomembranes, coextruded films, aluminized films, aluminum foils, aluminum foil composite films, breathable water-proof films and many other film materials.
Sheet	Including engineering plastics, rubber, waterproof building materials and thermal insulation materials, e.g, PP, PVC, PVDC and nylon.
Paper, Paperboard	Including paper and paper board.
Textile and Non-woven	Including textiles and nonwovens.

Technical Specifications

Test Range	0.01 ~ 60 g/m²•24h (Standard)
Number of Specimen	1-4 PCS
Accuracy	0.01 g/m²•24h
Resolution	0.001 g/m²•24h

Range of Temperature	10 ~ 60°C (Standard)
Accuracy of Temperature	±0.5℃
Range of Humidity	The built-in humidity control range is 0%, 5～90%RH;
Accuracy of Humidity	±2%RH
Air pressure	≥0.20 MPa
Test Area	50 cm^2
Sample's Thickness	≤ 3 mm (Customization is available)
Gas flow	0 ~ 200 ml/min
Dimension	440 mm (L) × 450 mm (W) × 450 mm (H)
Net Weight	42 kg

Configurations

Standard configuration: host computer, professional software, communication cable, sampler, gloves, micro-printer

Optional parts: standard membrane, air compressor

Remarks: The air source inlet of this machine is a 1/8-inch metal pipe; the air source and distilled water are provided by the user.