

Oxygen Permeability Analyzer Y310 2.0

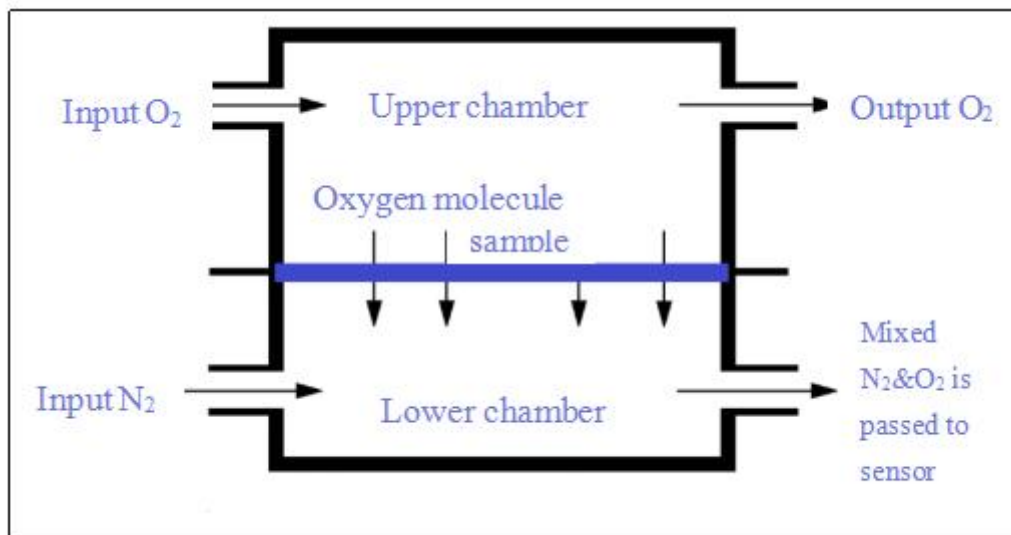


Introduction

Y310 Oxygen Permeability Analyzer is designed and manufactured based on the coulometric sensor method and conforms to GB/T 19789、ASTM D3985. This instrument can be used to measure the oxygen transmission rate of barrier materials with high and medium barrier properties with high accuracy and high efficiency. Y310 is applicable to the determination of oxygen permeability of plastic films, sheeting, paper, and other packaging materials used in food, pharmaceutical, medical apparatus, consumer products, photovoltaic and electronic industries, etc.

Test Principle

Y310 Oxygen Permeability Analyzer is designed and manufactured based on the coulometric sensor method. The pre-conditioned specimen is clamped in the test cell, oxygen or air flows on one side of the specimen while a stream of high purity nitrogen flows on the other side. Oxygen molecules permeate through the specimen into the nitrogen side and are carried to the coulometric sensor. The sensor analyzes the oxygen concentration and calculates the oxygen transmission rate.



Figure



Standard

GB/T 19789、YBB 00082003、ASTM D3985、ASTM F2622、ASTM F1927、ASTM F1307、ISO 15105-2、DIN 53380-3、JIS K-7126-B

Technical Parameter

Item	Technical parameter
Test range	0.01~1000 cm ³ /(m ² ·24h) (maximum 260000 cm ³ /(m ² ·24h))
Resolution	0.001 cm ³ /(m ² ·24h)
Test temperature	15~45°C
Humidity range	Dryness=0%RH, 5~90%RH, 100%RH
Temperature resolution	±0.1°C
Test area	50.24 cm ² (Custom Adapters, minimum 0.785 cm ²)
Specimen Size	Φ100 mm
Specimen thickness	≤3 mm
Test Cell	3 cell
Gas Pressure	≥0.1 MPa
Gas Size	Φ3 mm tube
Port Size	1/8 Metal tube
Air pressure	≥0.3 MPa
Power	750 W
Power supply	AC 220 V, 50 Hz

Product Features

◆ Patent core technology, high efficient and accurate testing

High-precision imported oxygen sensor with high sensitivity, ultra-high stability and ultra-low failure rate, with a resolution of up to 0.001 cm³/(m²·24h).

The new pneumatic air control system, the automatic clamp clamps the sample, which is



convenient and labor-saving, and has excellent sealing performance.

Adopt international advanced electromagnetic temperature control technology, automatically control the temperature rise and fall, and the temperature control accuracy is 0.1 °C.

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

The instrument is equipped with 3 chambers with independent data, which can meet the needs of high-throughput testing with high testing efficiency.

The measurement range is 0.05~1000 cm³/(m² · 24 h · 0.1 MPa), and the measurement range is wide, which can meet the testing requirements of high, medium and low barrier materials. With the addition of suitable accessories, it can measure the oxygen transmission rate of containers such as bottles, bags, and bowls.

◆ **Excellent design, convenient control, real-time visualization of curves**

The host is embedded with an 11.6-inch high-resolution color touch screen, with clear view, sensitive touch and easy operation.

The instrument is fully automatic operation, one-key test, automatic judgment, automatic shutdown.

Real-time display of six sets of curves of transmittance-time, temperature-time, humidity-time, nitrogen flow-time, oxygen flow-time, concentration-time, and the curve supports preview and hide function.

◆ **Smart operating system, global certification**

Self-developed intelligent operating system, modular icons, fashionable color matching, user-friendly settings, intuitive and convenient operation.

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

It has the function of audit trail (log tracking, test tracking), which can meet the needs of data traceability. System operation authority can be set to different levels.

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



Personalized test reports can be set on demand, support data output in multiple formats, support electronic signature functions, and submit audit reports online.

Global strength certification, Chinese and English language settings can be performed on demand.

◆ **Offline or online detection**

The instrument comes with its own operating system, which can be tested independently from the computer, and the data is automatically processed. The instrument is equipped with a computer interface, and can also be connected to a computer for online testing.

◆ **Professional calibration service, accurate and reliable data**

GBPI has approved and issued by the "General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China": gas transmission rate "National Standard Material Grading Certificate" and "People's Republic of China Manufacturing Measuring Instrument License", the standard number (GBW (GBW (E) 130497 / GBW(E) 130498); use national standard materials to calibrate and verify the instrument to ensure the accuracy, versatility and authority of the test data.


◆ **Lab Intelligent IoT Platform**

The instrument can be connected to the IoT platform to realize network digital management.

Log in to the IoT platform remotely and authorize to enter the instrument software interface, which can realize functions such as managing experimental data, remote diagnosis and troubleshooting.

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



Application field

	<p>film</p>	<p>Various plastic films (PP/PET/PE/PVC/BOPP/PP, etc.), plastic composite films, paper-plastic composite films, metal composite films,</p>
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		co-extrusion films, aluminized films, degradable packaging films (PLA/PBAT/PBS) etc.)
	sheet	Oxygen transmission rate test of solid pharmaceutical hard sheet (PP/PVC/PTP, etc.), metal composite sheet, rubber sheet and other sheet materials
	Medicinal stickers, warm stickers	Oxygen permeability test of medical plaster therapy patch, warm patch, dysmenorrhea patch and other patches
	hygiene products	Oxygen transmission rate test for sanitary napkins, pads and other sanitary products
	Paper, cardboard and their composites	Oxygen transmission rate test of paper and cardboard such as coated paper, carbon paper, silicone paper, aluminized paper, paper-aluminum-plastic composite sheet, etc.
	package	Wine bottles, cola bottles, peanut oil barrels, Tetra Pak packaging, vacuum packaging bags, three-piece cans, cosmetic packaging, toothpaste tubes, jelly cups, yogurt cups and other plastic, rubber, paper, paper-plastic composite, glass, metal bottles , Oxygen transmission rate test of bags, cans, boxes, barrels
	package cover	Oxygen permeation performance testing of various package closures



	<p>solar back sheet</p>	<p>Oxygen transmission performance test of solar back sheet</p>
	<p>pipe</p>	<p>Oxygen permeability test of pipes of various materials such as PPR pipes</p>

Product configuration

<p>Standard configuration</p>	<p>Power cord, communication line, sample cutter, sealing grease, metal gas pipe, terminal ferrule, terminal ferrule, standard membrane, special wrench, syringe, sealing ring, fork wrench, Phillips screwdriver, mouse</p>
<p>Optional parts</p>	<p>Computer, calibration certificate</p>
<p>User-provided</p>	<ol style="list-style-type: none"> 1. Standard laboratory environment; 2. Power requirements: 220V regulated power supply with three holes and three sockets with a switch; 3. Computer requirements: standard configuration (Windows10, with a nine-pin serial port); 4. One bottle of oxygen, the purity must be above 99.999%, with pressure reducing valve, the output range is 0-0.4 Mpa; 5. One bottle of nitrogen, the purity must be above 99.999%, with pressure reducing valve, the output range is 0-0.4 Mpa

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



Service

- ◆ Provide packaging testing technical support for free.
- ◆ One-year instrument warranty, free software upgrade service, free lifetime technical support.
- ◆ Free training of instrument operation at the factory, a graduation certificate will be issued to those who pass, and board and lodging will be provided free of charge.
- ◆ Instrument "trade-in" policy, and provision of backup instruments in case of failure.
- ◆ GBPI has a testing center (CNAS L8185), which provides sample testing and sample data comparison services. (CNAS L8185) ,
- ◆ There is a reference material research and development center to provide calibration

services.

◆ Introduction

Guangzhou Biaoji Packaging Equipment Co., Ltd. was established in 2002 and is located in Guangzhou Economic Development Zone. It is a company integrating R&D, production and

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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.

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