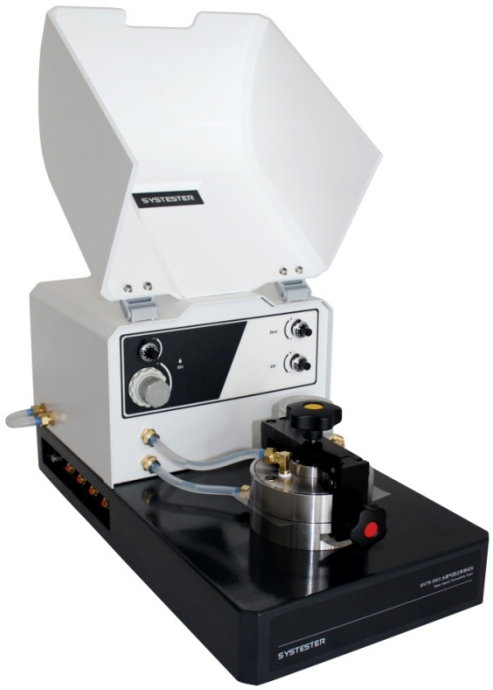
WVTR 226
Water Vapor Permeability Tester



Application

WVTR 226 is based on the infrared sensor method and available for the water vapor permeability test of flexible films, sheeting and packages.

Films:

Plastic films, aluminum foil, aluminized films, plastic composite films, paper-plastic composite films, coextruded films, aluminum foil composite films and many others.

Packages:

Plastic, rubber, paper, paper-plastic composite, glass and metal packages, e.g. red wine bottles, blister, various plastic bottles, beverage bottles, peanut oil packages, composite paper packaging materials, vacuum bags, metal three-piece cans, plastic packages for cosmetic, soft tubes for toothpaste, jelly and yogurt cups.

Features

- Infrared sensor method
- Own technology
- Film and package test
- one specimen test
- One-button test, test automatically in whole process

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Version： v1.04190514

- Multiple test modes optional
- Data curves display
- Computer control
- Digital flow adjustment
- Chamber temperature sensor embedded in
- Environment temperature and humidity sensor inside
- Chambers water bath technology
- Unit based on embedded system,24bit Δ-Σ AD
- Pressure, ppm water sensor and temperature overload protection
- Traceable reference film calibration
- Supports DSM system (DSM, lab data management system)

Principles

Film:

The specimen is clamped between the upper and lower chamber, the upper chamber is purged by high humidity nitrogen stream, and the other side of specimen, lower chamber is purged by a stream of dry nitrogen, due to the effect of water concentration gradient at two sides of the specimen, water molecules will permeate through the specimen into the dry nitrogen side, penetrated water molecules will be carried to the infrared sensor which generates the proportional signal, so water vapor transmission rate will be obtained by calculating the sensor signal.

Package:

The package is mounted on the lower chamber, the outside of the package is specified relative humidity, the inside of the package is purged by a dry nitrogen stream, water vapor will permeate through the wall into the inside of the package, penetrated water molecules will be carried to the infrared sensor which generates the proportional signal, so water vapor transmission rate will be obtained by calculating the sensor signal.

Technical indexes

Test range:

Film: 0.005-42 g/m^2·24h (Standard)

0.05-1000 g/m^2·24h (Optional)

Resolution: 0.001 g/m^2·24h

Package: (optional)

0.0001~0.3 g/pkg•d

Resolution: 0.00001g/pkg•d

Specimen amount: one piece

Temperature range: 5C–95C

Temperature accuracy: ±0.1C

Humidity range: 0%RH,35%RH-90%RH,100%RH, standard condition 90%RH

Humidity accuracy: ±1%RH

Test area: 48cm^2

Specimen size:

Film: size: >=150mm * 94mm; thickness: less 1mm

Package: max size: D120mm * 400mm

Carrier gas: 99.999% Nitrogen

Carrier flow: 0~200ml/min

Gas interface: 1/8inch

Power supply: AC 220V 50Hz

Dimension: 330mm(L) * 600mm(D) * 330mm(H)

Net weight: 28kg

Standard

ISO 15106-2, ASTM F1249, GB/T 26253-2010, TAPPI T557, JIS 7129

Configuration

Delivery: Main unit, computer, W-TRANS software, temperature controller, tank regulator, PCIE card, communication cable, sample cutter, vacuum grease.

Optional: Package fixtures, reference film, vacuum grease, sample cutter, DSM system.

Note: Specifications are subject to change without prior notice.