



Electrolytic Detection Method Water Vapor Permeability Tester TSY-W3/3

The electrolytic detection water vapor permeability tester is used for water vapor permeability tests of packaging materials such as plastic films, laminated films and many kinds of barrier packaging materials in pharmaceutical industry. By measuring the water vapor transmission rate, the technical index of products (packaging materials e.g.) can be controlled and adjusted in order to meet different demands in product application.

Principle

Clamp the specimen between dry and humid chambers. Due to the humidity difference between the two sides of the specimen, water vapor permeates from the high humidity chamber to the low one. And in the low humidity chamber, water vapor is brought to sensor by dry carrier gas. At the meantime, the sensor generates electrolytic signals. By analyzing and calculating those signals, the water vapor transmission rate and permeability coefficient of the material can be determined.



Features

- Electrolytic principle, high precision and automatic testing.
- Highly sensitive system, accurate and reliable test data.
- Three independent test chambers
- Non-stop test with the highest test efficiency.
- Users can select the test mode from several options.
- Controllable humidity and temperature, easy to realize several test environment and no strict requirement to lab environment.
- Novel and unique method of sample clamping, convenient and reliable.
- Large LCD screen display, test data clear at a glance.
- Made of high-quality and world-famous parts, stable and reliable performance.
- Friendly human-equipment interaction, easy to operate.
- RS-232 standard port communication
- Test process controlled by computer, one-key operation.
- Professional software support, perspicuous test process shown by curves.

Technical data

Test range

0.001 ~ 50 g/m².24h (normal)

0.01 ~ 1000 g/m².24h (optional)

Test temperature

5 ~ 75 °C

Temperature accuracy

± 0.1 °C

Humidity range

100% RH, 0%RH, 11 ~ 98%RH (saturated salt liquid) standard 90%RH

Carrier gas flux

100 ml/min

Sample quantity

1 ~ 3 pieces

Test area

50 cm² (single chamber)

Specimen size

Ø100 mm, thickness < 1 mm (accessories needed if thicker)

Carrier gas

99.999% highly pure nitrogen

Power

AC 220V 50Hz / 60Hz

Physical specifications

Dimensions

820 mm × 600 mm × 425 mm (L x B x H)

Net weight

81 kg

Standards

ISO 15106-3, DIN 53122-2, YBB 00092003

Configuration

Mainframe, temperature controller, valves and pipes for nitrogen feeding, desiccant, sample cutter, vacuum grease, software, communication cable, porous ceramic plate.

Note: Users provide test gas, distilled water and salt reagent themselves.