

VAC-VI Gas Permeability Tester

VAC-VI Gas permeability tester conforms to Chinese standard GB 1038, international standard ISO 2556, ISO 15105-1 and ASTM D 1434, etc. Applicable for gas permeation property test for plastic film, laminated film, man-made leather and various barrier materials.

1. Characteristics

- .Manometric principle compatible with relative ISO and ASTM standards.
- .World-famous high precision vacuum sensor ensuring accurate test data.
- .World-famous brand elements with stable and reliable performance.
- .Optional dual test modes: conventional and non-standard.
- .Super powerful software support, diffusion coefficient, solubility coefficient and permeability coefficient calculated automatically.
- .World original design. Curvefitting Methodology for predicting diffusion coefficient, solubility coefficient and permeability coefficient at any temperature.
- .Intelligent parameter set and test operation; automatization of the whole test process.
- .Satisfactory data repeatability and small margin for personal error.
- .Blank test with little systematic error; general performance exceeds similar products throughout the world.
- .Whole test process monitored and controlled by server, round-the-clock running, and test high efficiency.

2. Principle

Put a preconditioned specimen between the upper chamber and the lower chamber and clamp it tightly. Firstly apply vacuum to the low-pressure chamber (lower chamber) and then the whole system. When the specified degree of vacuum is reached, shut off the lower test chamber and feed test gas of certain pressure to the upper test chamber (high pressure chamber). Ensure that a constant differential pressure (adjustable) is maintained across the specimen. Hence under the gradient of differential pressure the test gas permeates from the high-pressure side to the low-pressure side. By monitoring and measuring the pressure in the low-pressure side we can get various barrier parameters of the tested specimen.

3. Technical data

Test range: 0.1~100,000 cm³/m².24h.0.1MPa (normal volume) Upper limit is not less than 600,000 cm³/m².24h.0.1MPa (extension volume) Note: Different mode volume can be selected by software.

Temp. Control range: room temperature ~ 50° C

Vacuum accuracy: 0.1Pa

Vacuum degree in test chamber: less than 20Pa

Test gas: O₂, N₂, CO₂, etc. (provided by users selves)

Test pressure: -0.1MPa~+0.1MPa

Pressure of gas source: 0.4MPa ≤ P ≤ 0.6MPa

Specimen size: φ97mm, transmission area 38.46cm² (diameter 70mm)

Dimension: 680(L) mm x 565(B) mm x 550(H) mm

Power: AC 220V 50Hz / 60Hz

Net weight: 130kg

4. Recommended application field

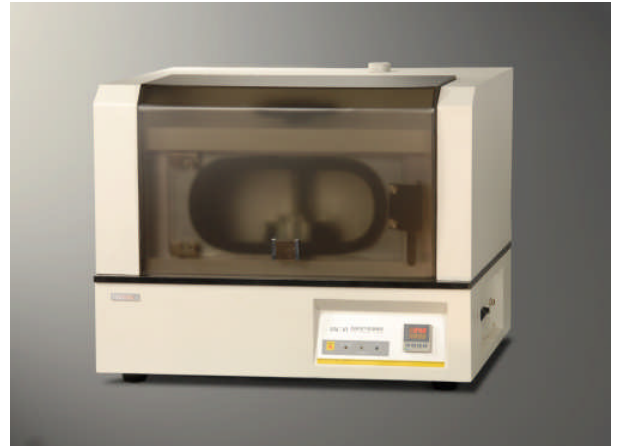
Research institutes, national legal inspection authorities and any social enterprise that has strict requirements to product process and technical index

5. Configuration

Standard: Mainframe, software, vacuum pump

Optional: sample cutter blades, vacuum grease, oil for vacuum pump, fast quantitative filter paper

Note: Users provide test gas for themselves.



6. Standards

ISO 2556, ISO 15105-1, ASTM D 1434, GB 1038, JIS K 7126-A, YBB 00082003