

i-Resitest 8100 Evaporation Residue Constant Weight Tester

- ❖ Online Data Management System for Packaging Testing- The ultimate cloud computing technology for test data processing and management
- ❖ Designed with embedded computer control system and intelligent operating software
- ❖ Can be used for for the precisely quantitative determination of dissolved substances of table wares, containers, packaging films, cans, tubes and other food-use equipments in different soaking solutions.
- ❖ Conforms to many national standards



Online data management system for packaging testing

Comes with two versions to meet distinct needs of our clients:

The Cloud Version

- Consist of 6 functional modules: Test Management, Target Management, Instrument Management, File Management, Settings, and Online Support
- Cloud services: storage, calculation, and analysis of mass test data
- Automatically upload original test data to the cloud server to guarantee data security
- Intelligent statistical analysis of test results
- Easily accessible through the internet on PCs, laptops, mobile phones, and other devices anywhere and anytime, to check and review real time test results and historical test reports, as well as analytical graphs and statistical information

The Intranet Version

- Featured with storage space for vast data, correlation analysis, trend analysis, and statistical analysis of test data, as well as report printing and data export functions
- Easily accessible via computers through Intranets
- “One Click Upgrade” to the powerful “Cloud Version”

Functionality

- Proportional, standard and differential value modes are available for different test requirements of users
- 8 specimen tests could be performed simultaneously with automatic testing process, which greatly improves determination efficiency.
- Test process can be simplified by automatic conduction of control test
- Automatic lifting structure design and periodically weighing method to reduce system errors
- Auto re-zero before each weighing ensures the accuracy of test results
- Special designs of hot wind circulation in test cells, auto temperature control and automatic dehumidification support various combinations of non-standard test conditions
- The instrument could perform weighing directly at high temperature to avoid human interference, and further ensure test accuracy
- Standard weight for fast and accurate calibration

Design

- Embedded computer control system provides safer and more reliable data management as well as test operation
- The instrument can be easily operated with a mouse, a keyboard, and a monitor, without requiring a PC.
- The instrument is equipped with four USB ports and dual Internet ports for convenient data transmission.
- Sophisticated energy consumption and test environment monitoring and analysis functions for better test accuracy and reliability. (Relevant sensors are needed. For more information, please refer to the configuration in Technical Specifications.)

Software

- **Interface:** Windows-based operating interface
- **Statistics:** easy calculation for historical results, instrument usage, energy consumption, and large statistical information
- **Energy Consumption and Test Status Monitoring (Additional Sensors Required):** the system monitors and displays real-time voltage, current, energy consumption, vibration and inclination angle of the instrument as well as the ambient temperature and relative humidity during the test, which serves to evaluate test data reliability.
- **User Management:** multi-level account management for better data management and protection
- **Operation Log:** system automatically records all the operations by the user, which is easy to review

Test Principle

- ❖ Soak the specimen into solution according to related requirements. Take out certain quantity of soaking solution and inject into conditioned test dish which has been dried in high temperature oven and come with constant weight. Dry the test dish with soaking solution on water bath, prior to placing it into high

temperature oven for further drying and weighing. Continue the dry and weigh operation until the weight of test dish reaches constant. The quantity of evaporation residues could be obtained by reducing mass of empty dish from the final constant dish mass.

- ❖ This instrument conforms to the following national standards:
GB/T 5009.60-2003, GB/T 5009.64-2003, GB/T 5009.68-2003, GB/T 5009.69-2008, GB/T 5009.203-2003, GB/T 9740-2008

Applications

Basic Applications	Food Package Test	Evaporation residue test of food packages, table wares, packaging films and others which are made from PE, PS and PP
	Sealing Gaskets of Food Cans	Evaporation residue test of sealing gaskets of bottles and cans for food, including packages for drinks, wine, and other flavoring
	Coating and Food Packages	Evaporation residue test of food packages which are made from chlorinated PVC resin, including chlorinated PVC resin inner coatings, food packages
	Coating Iron Sheet	Evaporation residue test of epoxy-phenol resin paint coated inside of food cans, including coating iron sheet
	Packages for Plant Fiber Food	Evaporation residue test of food packages made from plant fiber pulp
	Chemical Reagents	Evaporation residue test of chemical reagents that could dissolve in organic solvents which evaporates in boiling water bath

Technical Specifications

Test Specs	Test Range	0~80 g (residue weight)
	Accuracy	0.3 mg
	Resolution	0.1 mg
	Test Temperature	100 °C ~ 130 °C (Standard)
	Accuracy	±0.2 °C
	Air Velocity	0.2 m/s
	Specimen Volume	0~200 mL
	Number of Specimens	1~8 pieces (with independent test results)
Environment Monitoring Specs (Optional)	Test Chamber Size	64L
	Voltage Monitoring Range	AC 0 ~ 250 V, with ±0.5% accuracy
	Current Monitoring Range	0 ~ 15 A, with ±0.5% accuracy
	Energy Analysis Accuracy	±0.5%
	Environmental Temperature Monitoring Range	-10°C ~ 55°C, with ±0.1°C accuracy
	Inclination Angle Monitoring Range	-10°~10°

	Vibration Monitoring Range	-2 g ~ 2 g / 0~400 Hz
	Environmental Humidity Monitoring Range	0 ~ 100% RH, with $\pm 2\%$ RH accuracy
Other Specs	Gas Supply	Air
	Gas Supply Pressure	0.6 MPa
	Port Size	$\Phi 6$ mm PU Tubing
	Instrument Dimension	826 mm (L) \times 727 mm (W) \times 755 mm (H)
	Power Supply	AC 110 V 60 Hz
	Net Weight	150 kg
Configurations	Standard	Mainframe (including Wireless Data Interface), Professional Software, Standard LCD Monitor, Keyboard, Mouse, Evaporating Dish, Automatic Moisture Filter, Standard Weight, Valve Sets
	Optional	Environment Monitoring Sensors (including voltage, current, temperature, humidity, vibration and inclination sensors), Air Compressor, Printer (compatible with PCL3)
	Online Data Management System for Packaging Testing	Wireless Data Transfer Module, High Gain Antenna

Note: 1. The gas supply port of the instrument is $\Phi 6$ mm copper tubing;
2. Customers will need to provide gas supply.

Please Note:

- ❖ Pictures used are for illustration purposes only and may differ from the actual product received.
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