C840M Integrated Evaporation Residue Testing System

C840M Integrated Evaporation Residue Testing System is designed and produced based on the principle of Gravimetric Method and testing standards for plastic packaging, Pharmacopoeia and chemical reagents, etc. It is professionally suitable for the determination of evaporation residue of food or pharmaceutical packaging, total migration of food contact or pharmaceutical contact materials or products, and evaporation residue of chemical reagents and purified water.

Characteristics Note 1

Traceable Data

- Equipped with Labthink's latest fully automatic gripper that can simulate human hands to realize rapid moving and weighing of 12 test cups.
- Dual-separate-chamber design realizes separation of evaporation and weighing to avoid the influence of high temperature and high humidity on the scale.
- Germany imported touch electronic scale with a repeatability up to 0.05mg (optional).
- Visual scale design and the data are traceable.
- Self-calibration scale can be quickly disassembled and is convenient for measurement

Safe & Compliant

- Fully-closed zero leakage water bath can avoid harmful gas overflow.
- Water fill and drainage of the water bath are automatic, and the liquid level can be automatically detected.
- Rapid liquid cooling system truly achieves room temperature weighing.
- Nitrogen cycling and independent electrical control system are safer for tests of hazardous gases.
- Highly efficient reagent collection reduces environmental pollution.

Intelligent Control

- 10.1" medical-level touch screen; the instrument host can operate independently without a computer.
- Instrument host adopts desktop design to save space.
- Water bath evaporation, drying, cooling and weighing at room temperature can be completed automatically.
- The instrument is equipped with various kinds of sensors with sound and light intelligent reminder for safer control.
- The instrument is embedded with a network port and can be connected to the Internet for remote control and upgrading.
- Professional software meets the GMP requirements for data traceability and the needs of the pharmaceutical industry.
- The instrument adopts multi-level operation authority management for users and the authority details can be configured on demand.
- Electronic signature is designed as per requirements of 21 CFR Part 11.

Testing Principles

➢ **Total Migration**

Sample is soaked in the solution which is the simulator of various foods. When the solution is evaporated and dried, the total migration amount of non-volatile matter can be obtained.

➢ **Non-volatile Matter**

Sample is soaked in solution required by the standards. After the soaking solution and blank solution are evaporated and dried, the total weight of non-volatile residue is obtained by comparing with the blank solution.

Test Standard Compliance

Pharmacopoeia, YBB00342002-2015, YBB00132002-2015 and other standards for pharmaceutical production and pharmaceutical packaging.

ISO 759-1981, GB 31604.8-2016, GB/T 5009.60 and other standards for food contact materials.

GB/T 9740 and other related standards for determination of chemical reagent residue after evaporation.

Applications

Basic Applications	**Purified Water**	Determination of non-volatile matters in purified water for pharmaceutical applications.
Extensive Applications	**Pharmaceutical Packaging Materials**	Determination of non-volatile matters of various pharmaceutical composite films, bags, bottles, rubber plugs and caps.
	Food Contact Materials	Determination of the total migration amount of polyethylene, polystyrene, polyvinyl chloride, polypropylene, melamine, foam polystyrene and plant fiber molding products.
	Chemical Reagents	Determination of various chemical reagent residue after evaporation.

Technical Parameters

Table 1: Test Parameters Note 2

Parameter\Model		**C840M**
Test Range	mg	0.3～80000
		0.05～10000 (optional)
Resolution	mg	0.1
		0.01 (optional)
Repeatability	mg	±0.3
		±0.05 (optional)
Temperature Range	℃	Room temperature～130
Temperature Fluctuation	℃	±0.5
Extended Functions	21 CFR Part11	optional
	Computer system requirements for GMP	optional

Table 2: Technical Specifications

Test Stations	12
Test Cup Volume	100mL[Note 3]
Gas Specifications	Compressed air (gas source is provided by the user)
Gas Source Pressure	≥ 72.5 PSI/500 kPa
Port Size	Φ8mm Polyurethane tube
Instrument Host Dimensions	24.8” H x 41.3” W x 28.7” D (63cm× 105cm× 73cm)
Power Supply	120VAC±10% 60Hz / 220VAC±10% 50Hz (Select one from the two)
Net Weight	396Lbs (180kg)

Table 3: Product Configuration

Standard Configuration	Instrument host, scale (0.1mg), reagent collection module, liquid cooling module, test cups (12 cups), Φ8 mm Polyurethane tube
Optional Parts	Software, computer system requirements for GMP, 21 CFR Part11, air compressor (with an exhaust capacity > 200L/min), test cup (100mL), scale (0.01mg), weight (50g), air drying module

Note 1: The described product characteristics are subject to the specific annotation of the "Technical Parameters" table.

Note 2: The parameters in the table are measured in Labthink laboratory by professional operators as per requirements and conditions of the relevant laboratory environment standards.

Note 3: The test cup volume can be customized, but the test range may be subject to actual delivery.

✧ Labthink is always dedicated to the innovation and improvement of product performance and functions. Therefore, technical specifications are subject to change without further notice. Labthink reserves the rights of final interpretation and revision.