

Whiteness and Brightness



Model: RWB-206

Applications

* The whiteness meter is mainly used to directly measure the whiteness value of objects or powders with flat surfaces.

Principle

The instrument consists of Light Source, Optical System, Detection System, Data Process and Display System. The Whiteness Calculation Formula of the instrument is blue light whiteness R457.

The light source of the instrument is long-life LED with 457nm, conforming to the light source requirement in the JJG 512-2002 National Metrological Whiteness Meter Verification Regulation. The measurement of the instrument adopts the principle of photoelectric effect. The diffuse reflectance Radiant Brightness Energy Value of the sample surface is received by the optical cell. Then, the value is amplified by high-precision auto zeroing operation amplifier, inputted to the calibration circuit for energy calibration. Then, the whiteness value of the sample is directly shown on the display.

Features

- * Can be widely used in textile printing and dyeing, paint, chemical building materials, paper and cardboard, plastic products, white cement, ceramics, enamel, talc, starch, flour, salt, detergent, cosmetics and other substances whiteness measurement.
- * It is composed of light source, optical system, detection system, data processing and display system. The whiteness calculation formula of this instrument is blue light whiteness R457.
- * Define the whiteness value of an ideal surface with a diffuse reflectance ratio of 1 across the visible spectral range as 100, and the whiteness of a black surface with a spectral reflectance factor of 0 as 0.
- * Diffuse reflection is the reflection of light projected on a rough surface in all directions. When a beam of parallel incident light is emitted to the rough surface, the surface will reflect the light in all directions, so although the incoming rays are parallel to each other, because the normal direction of each point is inconsistent, causing the reflected light to reflect irregularly in different directions, this reflection is called "diffuse reflection" or "diffuse.Shoot".
- * Through strict testing and debugging, the instrument conforms to JJG 512-2002 whiteness meter verification regulations, Comply with GB3978, GB3979, GB7973, GB7974, ISO2470, GB8904.2, QB1840, GB2913, GB13025.2, GB1543, ISO2471, GB10339, GB5950, GB12911, GB2409 and other standards.
- * USB, RS-232C data line output and PC connection, data collection.
- * There is also a Bluetooth Bluetooth data output option.

Specifications

Range	Whiteness: 0~100 Reflectance: 0~100	
Resolution	0.1	
Illumination Condition	45/0	
Illuminant	LED 457nm	
Whiteness Formula	Blue Light Whiteness WB=R457	
Measuring Aperture	18x11 mm Rectangle	
Zero Drift	≤0.1	
Stability of Display	≤0.5	
Repeatability of Measurement	≤1	
Operating Condition	Temperature	0~40°C
	Humidity	< 85%RH
Power Supply	Lithium Battery	
Size	140x45x75 mm	
Weight	305 g (Including Batteries)	

Accessories

Standard Accessories	Main Unit
	Standard Board
	Optical Cleaning Cotton Cloth
	Carrying Case
	Operation Manual
	Constant Pressure Powder Forming Apparatus
Optional Accessories	RS-232C Data Cable with Software
	Bluetooth Data Adapter with Software

