WSB-3Y Microcomputer desktop fluorescent whiteness instrument



Microcomputer type fluorescent whiteness meter is composed of light source, optical system, detection system, microcomputer data processing and display system. The total whiteness of the substance is R457. R457= blue light whiteness R457 + fluorescent whiteness F. The whiteness of the ideal surface with the spectral diffused reflection ratio of 1 is 100, and the whiteness of the absolutely black surface with the spectral diffused reflection ratio of zero is 0. This instrument is designed in full accordance with the standard light source and lighting conditions specified by the international commission of illumination (CIE). It is strictly tested, debugged and executed in enterprise standard Q/ tdky02-2004. It is applicable to national standards such as GB2913, GB5950, GB8940.1, GB12097 and GB13025.2.

The working principle of the instrument USES the principle of photoelectric conversion and adopts the analog to digital conversion circuit to measure the radiative brightness energy value of the white reflection on the sample surface, through signal amplification, A/D conversion and data processing, and finally displays the corresponding whiteness value.

This instrument can be widely used in textile printing and dyeing, paint coating, chemical building materials, paper board, plastic products, white cement, ceramics, enamel, clay, talc, starch, flour, salt, detergent, cosmetics and other objects whiteness measurement. The opacity of the paper can be calculated by measurement.

- 1. The determination of blue ray 457nm diffuse reflection factor (r457) of the sample is called "Blue light whiteness r457"
- 2. Determine whether the sample contains fluorescent whitening agent, and determine the fluorescence whiteness value generated by fluorescence emission, which is called "Fluorescent whitening. Or & other Whitening degree F".

Functional features

- 1. The r457 value and fluorescence brightening F value of the substance to be measured are measured once. This method is easy to use and accurate in measurement.
- 2. The operation interface is simple, and the operation method can be mastered directly according to the workflow in the appendix.
- 3. Large-screen high clear LCD display is adopted, with comfortable reading and free from the influence of natural light.

- 4. Low drift and high precision integrated circuit and high efficiency and long life light source can effectively ensure the instrument to work stably for a long time.
- 5. Reasonable and concise optical path design can effectively ensure the correctness and repeatability of the measured value.
- 6. Simple operation can accurately measure the opacity of paper.
- 7. National calibrated whiteboard is adopted to transfer standard values, and the measurement is accurate and reliable.

Matters needing attention

This instrument is a measuring instrument. It is strictly forbidden to be disassembled. Please read the instructions carefully before use.

- 1. The working environment shall be free of corrosive gases and vibration sources.
- 2. No strong light source or strong magnetic field interference shall be allowed around.
- 3. The surrounding air should be dry and free from flotsam such as dust.
- 4. After the instrument stops for a long time, the preheating time should be extended accordingly to improve the stability.
- 5. Power supply voltage must meet working conditions.
- 6. The sample shall not be dropped into the measuring barrel, lest it cannot be set to zero.
- 7. Do not directly touch the optical components by hand, so as not to affect the spectral characteristics.
- 8. Do not contaminate the black box and work whiteboard, so as not to affect accuracy.

Operation parameters

Measurement range	0 ~ 199
Content of measurement	blue ray whiteness r457 fluorescent whiteness F
Light source	LED light source
Lighting conditions	comply with GB/T3978 regulation 45/0
Display	LCD display
Measuring the aperture	¢ 30
Minimum	0.1
Measurement repeatability	0.2
Error of indication	≤ & plusmn; 1
Using the environment temperature (5 °C ~ 35 °C)	Humidity (& le; 85% RH)
Transportation and storage environment	temperature (20 °C to 50 °C); Humidity (& le; 90% RH)