Color Haze Meter

Precise Measurement. Professional Testing.

Haze/Transmittance/Clarity Testing

The KS1500 Color Haze Meter accurately measures multiple parameters of transparent/semi-transparent materials, including haze, transmittance, color difference, clarity, turbidity, Pt-Co color, yellowness, whiteness, and more, while displaying the spectral graph. Its open measurement area supports both horizontal and vertical testing, accommodating liquids and large-sized samples (thickness < 105 mm). A selection of measurement apertures—Φ20/15/8 mm—is available to suit samples of varying sizes. Equipped with built-in quality management software, it supports data export and report printing, enabling precise quality control in both laboratory and production line settings.



Own the core tech: Top performance, budget price.

ISO9001 CE RoHS



High-Precision Spectrophotometric Technology

Utilizes a 0/D optical structure (parallel light illumination, diffuse reception), combined with a nano-integrated spectral device and a silicon photodiode array (dual-row 18 groups). Wavelength range: 400—700 nm, with a wavelength interval of 10 nm, enabling precise acquisition of the transmittance curve of transparent samples and accurate output of various chromaticity data.

Compatibility of Compensation and Non-Compensation Methods

Compliant with international and national standards such as ASTM D1003/1044, ISO 13468, ISO 14782, and GB/T 2410. The instrument can easily implement the ASTM D1003 non-compensation method and the ISO 13468 compensation method. It supports total transmittance, haze, and clarity tests, meeting the testing requirements of different materials and application scenarios, thereby enhancing testing flexibility and data comparability.

ISO & ASTM INTERNATIONAL Standards Worldwide

Open Measurement Area with Horizontal Design

The hardware configuration is robust, featuring an open measurement area. The horizontal structure allows for both vertical and horizontal testing, facilitating the placement and operation of large-sized samples. It supports testing of samples with a thickness of less than 105 mm. A variety of measurement apertures (Φ20 mm/Φ15 mm/Φ8 mm) are available to flexibly accommodate samples of different sizes and forms.





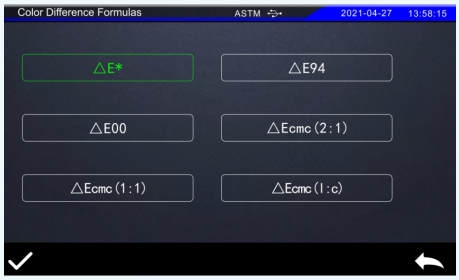


Multi-Dimensional Colorimetric Indicator Output

Supports multiple color spaces such as CIE LAB, XYZ, Yxy, LCh, s-RGB, βxy, CIE LUV, Munsell, and HunterLab, and provides various color difference formulas including ΔEab, ΔE94, ΔEcmc, and ΔE00. Simultaneously outputs indicators such as haze, transmittance T (ISO/ASTM), clarity, whiteness index (WI), yellowness index (YI), absorbance, Pt-Co index, Gardner index, CMYK, metamerism index (MI), and turbidity, enabling a comprehensive evaluation of sample optical characteristics.



Standard Light Source Selection Interface



Color Difference Formula Settings Interface



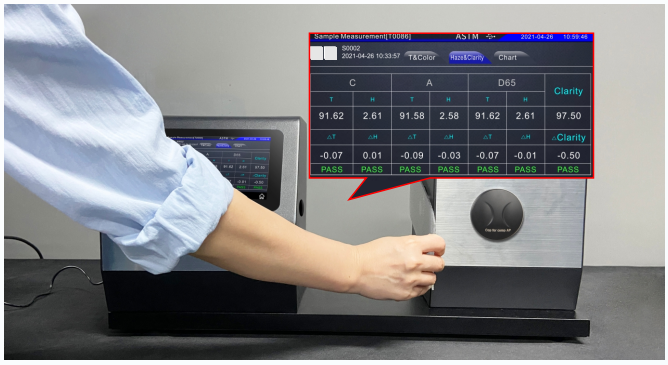
Color Space Settings Interface

High Repeatability and Stability

Under the Φ20 mm aperture, the haze repeatability is less than 0.03 (after instrument warm-up and calibration, tested at 5-second intervals for 30 measurements using a standard haze plate with a haze value of approximately 30, based on standard deviation). Transmittance repeatability is also better than 0.03, and color difference repeatability is less than 0.03, ensuring data stability and reliability during long-term use.

Intelligent Operation and Data Management

Equipped with a 7-inch TFT true-color capacitive touchscreen, supporting spectral graphs, sample colorimetric values, color difference values/graphs, chromaticity diagrams, color simulation, and pass/fail result display. Large storage capacity, capable of saving up to 5,000 standard samples and 20,000 test samples. Supports multiple interfaces such as USB, printer serial port, and Bluetooth, facilitating data export and system integration.





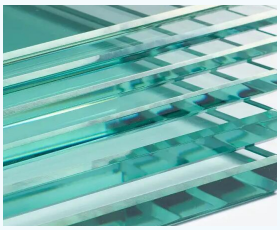
International and Chinese Standards

International standards: ASTM D1003/1044, ISO 13468, ISO 14782, CIE 15.2, ASTM E308, JIS K7105, JIS K7361, JIS K7136
Chinese standards: GB/T 2410, JJF 1303-2011, GB/T 3978



APPLICATION FIELDS

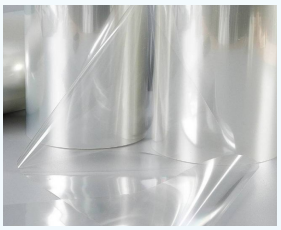
The KS1500 Color Haze Meter is widely used in glass processing, plastic processing, film manufacturing, display panel processing, packaging industry, liquid pharmaceutical analysis, and other fields. It is suitable for optical performance testing of transparent and semi-transparent materials, including transmittance, haze, colorimetry, clarity, etc. It is an ideal choice for laboratory quality control and online process inspection.



Glass Processing



Plastic Processing



Film Manufacturing



Display Processing



Liquid Pharmaceutical Analysis

OPTIONAL ACCESSORIES

Product Name	Material Code	Image	Function
Test Fixtures (Cuvette,Thick Plate, and Film Fixtures)	/	 (Cuvette Fixture)	Conveniently fixes samples onto the instrument for measurement.
Micro Printer	1.609.01.0020		Portable design allows printing of various measurement parameters without connecting to a computer.
Standard Haze Plates	/		Facilitates haze value transfer and self-calibration for haze meter measurements.
Foot Switch	2.002.53.0006		Enables hands-free operation, improving efficiency and safety.

PRODUCT SPECIFICATIONS

Product Model	KS1500 Color Haze Meter
Geometry	Transmission: 0/D (parallel light illumination, diffuse reception);
Meet The Criteria	ASTM D1003/1044, ISO 13468, ISO 14782, GB/T 2410, JJF 1303-2011, CIE 15.2, GB/T 3978, ASTM E308, JIS K7105, JIS K7361, JIS K 7136
Integrating sphere size	Φ154mm
Light Source	400—700 nm combined LED light source
Spectrophotometric Mode	Nano-integrated spectral device
Sensor	Silicon photodiode array (dual-row, 18 sets)
Wavelength Range	400~700nm
Wavelength Interval	10nm
Half Bandwidth	10 nm
Transmittance Measurement Range	0—100%
Measurement Aperture	Φ20 mm / Φ15 mm / Φ8 mm (single aperture selected)
Sample Size	Thickness less than 105 mm
Color Space	CIE LAB, XYZ, Yxy, LCh, sRGB, βxy, CIE LUV, Munsell, HunterLab
Color Difference Formulas	ΔEab, ΔE94, ΔEcmc (2:1), ΔEcmc (1:1), ΔE00, ΔEuv, ΔE*CH
Other chromaticity index	Haze (ASTM D1003/1044, ISO 13468), Transmittance T (ISO), Transmittance T (ASTM), Clarity,WI (ASTM E313, CIE/ISO, AATCC, Hunter, Taube, Berger, Stensby),YI (ASTM D1925, ASTM 313), Absorbance,Platinum-Cobalt Index, Gardner Index, CMYK, Tint (ASTM E313-00), Metamerism Index MI, Turbidity
Observer Angle	2°/10°
Illuminant	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, DLF, TL83, TL84, TPL5, U30, NBF
Displayed Data	Spectral graph, sample colorimetric values, color difference values/graph, chromaticity diagram, color simulation, pass/fail results
Measuring Time	Approx. 1.5 s
Haze Resolution	0.01 units
Haze Repeatability	For Φ20 mm aperture: less than 0.03 (standard deviation of 30 measurements of a standard haze plate with haze approx. 30, taken at 5 s intervals after warm-up and calibration)
Transmittance Resolution	0.01 units
Transmittance Accuracy	Better than ±1%
Transmittance Repeatability	For Φ20 mm aperture: less than 0.03 (standard deviation of 30 measurements of a standard haze plate with haze approx. 30, taken at 5 s intervals after warm-up and calibration)
Color Difference Repeatability	For Φ20 mm aperture: less than 0.03 (standard deviation of 30 measurements of white glass taken at 5 s intervals after warm-up and calibration)
Platinum-Cobalt Resolution	0.01
Platinum-Cobalt Accuracy	≤ ±(5%H + 1), where H is the standard value
Platinum-Cobalt Range	0—1000
Turbidity Range	0—1000 NTU
Dimensions	487 × 260 × 298 mm (L × W × H)
Weight	Approx. 8.0 kg
Power Supply	24 V DC, 3 A power adapter
Light Source Lifespan	5 years or >3 million measurements
Display	TFT true color, 7-inch capacitive touchscreen
Interfaces	USB, serial print port, Bluetooth
Data Storage	5,000 standard samples, 20,000 test samples
Languages	Simplified Chinese, Traditional Chinese, English
Operating Temperature Range	0—40°C (32—104°F)
Storage Temperature Range	—20—50°C (—4—122°F)
Standard Accessories	Power adapter, user manual, quality management software (download from official website), data cable, 0% calibration box, measurement aperture
Optional Accessories	Micro printer, test fixtures, standard haze plates, foot switch