



HACA-3800 High Accuracy Color Analyzer

HACA-3800 employs EVERFINE's high accuracy & speed (patented) spectral measurement technologies to provide more accurate color, reflectance and transmittance measurement for various objects, which can be used for colorant formulation and color assessment etc. Measurable parameters include spectral transmittance/reflectance, color, whiteness, yellowness, metamerism index and etc. HACA-3800 is in compliance with ISO, CIE, ASTM, DIN, JIS and GB/T standards, which makes HACA suit for many fields like plastic, paint, print, textile, liquid and glass and so on.

Main characteristics:

Leading accuracy: repeatability is better than $0.01\Delta E^*ab$, inter-instrument agreement is up to $0.08\Delta E^*ab$;

Patented Technology provides accurate measurement of fluorescent color without UV correction;

Excellent performance of dark color measurement;

Full-spectrum LED light source with longer life and better stability;

Both reflection and transmission measurements are available;

Double beam feedback system monitors fluctuation of light source and do compensation automatically;

Large, medium and small apertures can be selected and automatically identify the aperture during measurement;

Large touch screen display, easy to achieve calibration and measurement without computer;

The software supports the input of various standard color data;

Measurement data is compatible with portable spectrophotometer from EVERFIN, to realize easy management of data from laboratory to production line.

- 1) Measurement function: spectral reflectance curve, spectral transmittance curve;
- 2) Color space/color parameters: L^*a^*b , L^*C^*h , Yxy, Luv, Hunter Lab, XYZ, RGB, ΔE^*ab , ΔE^*94 , ΔE^*00 , CMC (2:1), CMC (1:1), MI, WI (ASTM313/CIE), YI (ASTM313/ ASTM D1925), etc.
- 3) Lighting/receiving conditions:
Transmission: d/0 (diffuse illumination /0° reception) meets ASTM requirements,
Reflection: d/8 (diffuse illumination /8° reception) in accordance with ISO, DIN, CIE, ASTM requirements;
- 4) Synchronous measurement: SCI (specular reflection) /SCE (specular reflection elimination) optional;
- 5) Measuring diameter:
Transmission measurement diameter: Φ 20 mm (10 mm and 5 mm Φ optional)
Reflection measuring diameter: LAV: Φ 28 mm; MAV: Φ 11 mm; SAV: 5 x 7 mm;
- 6) Wavelength range: 380-780nm
- 7) Reflectance range: 0-200%, resolution: 0.01%;
- 8) Repeatability:(after whiteboard correction, measure the white correction board 30 times at 10-second intervals)
The spectral reflectance standard deviation is less than 0.05%,
Chroma value standard deviation ΔE^*ab is less than 0.01;
- 9) Inter instrument agreement: the average Δ swatches E^*ab value is less than 0.08;
- 10) A variety of colorimetric dishes are available for liquid measurement.
- 11) Communication interface: USB;
- 12) Instrument size: 310mm×275mm×605mm;
- 13) Weight: about 25kg.



Automotive center control screen



Leather Automotive seat



Windshield