

SPECTROPHOTOMETER

PCE-CHM 700



- » **Measuring modes: horizontal and vertical**
- » **Colour spaces: CIE Lab, CIE LCh, Yxy**
- » **Measuring geometry: D/0°**
- » **Measuring apertures: Ø 5mm/14mm**
- » **Memory for 1000 measurement data**
- » **7 inch IPS touchscreen**
- » **Supports ASTM and ISO standards**
- » **App and PC software**

The spectrophotometer is ideal for the precise measurement of turbidity, transmission, clarity, color difference and Pt-Co for various transparent and semi-transparent materials such as plastic, glass, films and liquids. It is widely used in material testing, quality control and purity and color monitoring in industry and research.

The Haze measuring device uses a full spectrum LED light source and a high-resolution spectral sensor that measures in the wavelength range from 400 ... 700 nm in 10 nm steps. This enables the spectrophotometer to provide a detailed spectral curve representation of light transmission, which can be used to precisely determine the transmission performance of materials and evaluate their optical properties and material color. The color spaces CIE Lab, CIE LCh and Yxy as well as the standard light sources CIE-A, CIE-C and CIE-D65 are supported, ensuring standard-compliant measurements in accordance with ASTM and ISO standards.

Haze measurement is a method for determining the haze of a material - typically plastics, glass, films or liquids. "Haze" describes the proportion of light that does not pass directly through a material but is scattered instead. The result is a milky, blurred effect - the material appears less clear.

With two variable apertures of 14 mm and 5 mm, the transmission meter can measure samples of different sizes, while two measurement modes, horizontal and vertical, offer flexible application options for liquids and solids.

Specification

Turbidity	
Measurement range up to	0 ... 1000 NTU
Resolution	0,1 NTU
Accuracy	≤ ±(5% v.Mw. +1 NTU)
Repeatability	≤0.03
Pt-Co	
Measurement range up to	0 ... 1000
Resolution	0,1
Accuracy	≤ ±(5% v.Mw. +1 NTU)
Transmission	
Measurement range up to	0 ... 100 %
Resolution	0.01 %
Accuracy	±1%
Repeatability	≤0.03
Clarity	
Measurement range up to	0 ... 100 %
Resolution	0.01 %
Accuracy	±2%
Repeatability	≤0.03

General technical data	
Display type	LC touch display
Display size	7 Inch
Display resolution	1024 x 600
Storage medium	Internal memory
Storage capacity	1000 Data records
Interface	USB-C
Standard(s)	JJF1303-2011, GB/T2410-2008, GB/T36142-2018, JJG 595-2002, GB/T 3978-2008, GB/T 7921-2008, GB3143-1982, JJF1947-2021, JJG880-2006
Sensor	Spectral sensor
Repeatability	0,03 ΔE*ab
Light source	Full spectrum LED / CIE-D65, CIE-A, CIE-C
Measurement time	3 s
Colour spaces	CIEL a* b*, CIEL*C*h°, Yxy
Measuring aperture	5 mm / 14 mm
Measuring geometry	D/0°
Wavelength range	400 ... 700 Nm
Observer	2°, 10°
Measuring interval	10 Nm
Menu language	English, English (GB), Chinese
Protection class (device)	IP20
Power supply	110 ... 277V AC 50/60 Hz
Connector type	Schuko plug
(Rechargeable) battery	1 x 3 V Button cell , lithium
Capacity	220 mAh
Operating conditions	0 ... 45 °C , 0 ... 85 % RH
Storage conditions	25 ... 55 °C , 0 ... 85 % RH
Dimensions (L x W x H)	260 x 210 x 360 mm
Weight	5269 g