



Anton Paar

:: Superior Optical Instruments



Sucroflex

Digital Reflectance Colorimeter for Color Grading White Sugars

General

The most eye-catching quality factor of crystal sugar is its color which may vary from brilliant white to yellow-brownish tones of different density. ICUMSA, the International Commission for Uniform Methods of Sugar Analysis, has defined a color type scale for color grading white sugars. It covers a range from 0 to 6, whereby 0 corresponds to a sugar of maximum whiteness, while 6 indicates a highly colored low-grade white sugar.

Sucroflex replaces the manual method in which sugar samples of unknown color are moved along a line of 7 color type standards to visually find the position at which color matching is best.

The instrument uses an Integrating Sphere Photometer to guarantee completely diffuse, shadeless illumination of samples. Grain size differences have no effect.

The photoelectric principle of operation is superior to the human eye and approved by ICUMSA. The instrument provides reproducible results, independent of the operator.

To calibrate the color type scale of Sucroflex, two standards are required, each one for the beginning and end of the scale. For this purpose either sugar standards or ceramic standards, manufactured by Anton Paar GmbH, can be used.

Specifications

Measuring principle	Photoelectric sphere photometer for measuring the green / red reflectance ratio of white sugar
Measuring range	0 to 19.99 CTU (ICUMSA color type units) above 6 by extrapolation
Resolution	0.01 CTU
Reproducibility	± 0.04 CTU
Light source	Tungsten-halogen lamp, 6 V, 10 W, average life 2000 h
Optical wavelength	495 and 620 nm, tolerance 1%, bandwidth 20 nm
Photodetectors	2 silicon photodiodes
Interface	RS-232C serial interface
Dimensions and weight	210 mm x 310 mm x 315 mm (W x D x H), 7 kg
Power requirements	Self-adapting to any mains voltage of 90-264 VAC, 47-63 Hz
Calibration	Calibration either by ceramic or sugar standards of about 0 and 6 CTU
Sample cup	45 mm ID, depth 20 mm
Standards	ICUMSA, conform to method GS2-13 (2007)

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Specifications subject to change without notice

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