



## Sucroflex

Digital Reflectance Colorimeter for Colour Grading of White Sugars

## General

The most eye-catching quality factor of crystal sugar is its colour 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 colour type scale for colour grading of white sugars which covers a range from 0 to 6, whereas 0 corresponds to a sugar of maximum whiteness, while 6 indicates a highly coloured low grade white sugar.

The Sucroflex replaces the manual method where sugar samples of unknown colour are moved along a line of 7 colour type standards to find visually the position where colour 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 colour type scale of the Sucroflex, two standards are required, each one for begin and end of the scale. For this purpose either sugar standards or ceramic standards, manufactured by Anton Paar GmbH, can be used.



## Specifications

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

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Rheometry and viscometry                      High-precision temperature measurement  
Sample preparation                                Refractometry  
Microwave synthesis                              Polarimetry  
X-ray structure analysis

Specifications subject to change without notice

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