



Automatic oil colorimeters

***Oils, Fats, Waxes &
Transparent Liquids***

Lovibond® PFX880/L & AT

- *Edible Oils & Fats*
- *Oleochemicals & Surfactants*
- *Industrial Oils & Resins*



Lovibond® PFX880/L&AT Automatic oil colorimeters

Automatic Colorimeters Measuring Lovibond® Colour or AOCS-Tintometer Colour

Lovibond® Colour and AOCS-Tintometer Colour scales are popular quantitative methods for colour measurement of oils and fats, which have gained widespread international acceptance. The Lovibond® PFX880/L and PFX880/AT are high precision spectrophotometers for objective measurement of colour in accordance with these scales. The PFX880/L expresses colour in terms of the Red, Yellow, Blue and Neutral units that make up the Lovibond® Colour scale. The PFX880/AT gives colour data according to the AOCS-Tintometer Colour scale, a special red and yellow version of the Lovibond® scale. Results are also displayed in terms of CIE values and spectral data.

Colour scales	Scope	Range	880/L	880/AT
Lovibond® RYBN (AOCS Method Cc 13e-92, AOCS Method Cc 13j-97)	Oils, fats, chemicals, resins and other transparent liquids in terms of Lovibond® Red, Yellow, Blue & Neutral units	0 - 70 Red, Yellow; 0 - 40 Blue; 0 - 3.9 Neutral	•	
AOCS-Tintometer (AOCS Cc 13b-45, AOCS Method Cc 13j-97)	Special red and yellow version of the Lovibond® RYBN scale used for oils, fats and derivatives	0 - 20 Red; 0 - 70 Yellow		•
Chlorophyll A & B	Direct measurement of content in parts per million	0 - 100 ppm	o	o
beta Carotene	Direct measurement of contents in parts per million	0 - 1000 ppm	o	o
CIE Values (ASTM E 308)	X Y Z tristimulus values; x y Y chromaticity co-ordinates; CIE L*a*b* colour space; ΔE colour difference	Defined by spectrum locus	•	•
Spectral data (420 - 710 nm)	Transmittance	0 - 100%	•	•

• included as standard o available as an optional upgrade kit

Bringing Precision and Reliability to Oil Colour Measurement

For many decades, Tintometer has manufactured the calibrated glass filters which are widely used for visual measurement of Lovibond® Colour and AOCS-Tintometer Colour. It is this unique knowledge that is embodied in the PFX880 automatic colorimeters. Use of sample cells up to 6" path length ensures precise colour measurement, without multiplying errors, even with pale coloured samples. The accuracy, repeatability and reproducibility of data provided by the PFX880/L and PFX880/AT allow for consistency in colour measurement, giving users the confidence needed to make important decisions regarding raw materials and processing operations.

Colour Analysis made Simple

The PFX880 colorimeters are easy to use, automatic instruments, which overcome the subjectivity of visual methods. The menu system guides operators through the selection of operating parameters. Thereafter, measurements are initiated by just a single key press and take less than 25 seconds to complete.

Optional Items for Individual Applications

Integrated heater unit	A factory fitted option for melting solid samples such as fats and waxes and preventing them from solidifying in the cell.
Chlorophyll A & B and beta carotene measurements	Available on either instrument version with the addition of an upgrade kit.
Windows software for data capture on PC	Allows data sets to be automatically downloaded to a PC computer where they can be processed or stored.
Conformance filter sets	For quick and simple calibration checks, sets of graded glass filters are available, representing a spread of colours from the Lovibond® Colour or AOCS-Tintometer Colour scales.
Certified colour reference standards	Ideal for routine calibration and verification of test data.

The Lovibond® PFX880/L&AT are supplied complete with two optical glass cells (100 mm and 33 mm), a calibrated glass conformance filter, a spare lamp and instructions

TECHNICAL SPECIFICATION

Measuring principle	16 interference filters
Spectral response	420 - 710 nm
Bandwidth	20 nm
Repeatability	
- chromaticity (x y)	± 0.0002
- transmittance	± 0.25 %
- Lovibond® values	± 0.1
Measurement time	Less than 25 seconds
Calibration	Single key press; fully automated
Light source	5 Volt, 10 Watt tungsten halogen lamp (lens ended)
Illuminant	CIE Illuminant C
Observer	2°
Path length	0.004" - 6" (0.1 - 153 mm)
Interface	Parallel printer port, RS 232 port
Input voltage	Universal, via external power supply
Approvals	CE
Display	2 x 40-character, back-lit LCD
Keypad	21-key membrane keypad; washable polyester with audible feedback
Instructions	7 languages: English, French, German, Spanish, Italian, Portuguese, Dutch
Heater unit	Factory fitted option, 95°C max
Instrument housing	Fabricated sheet steel with tough, textured paint finish
Dimensions	Width 515 mm, depth 195 mm, height 170 mm
Weight	7.75 kg

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