Automatic Saybolt & ASTM Color

Mineral oils, waxes & petrochemicals

Lovibond® PFX880/P

- *Petrochemicals*
- *White Oils & Waxes*
- *Fuel Oils & Lubricants*

Lovibond® PFX880/P
Automatic colorimeter

An Automatic Colorimeter Measuring Saybolt and ASTM Color

The Lovibond® PFX880/P is a high precision spectrophotometer for objective colour analysis of petroleum fuels, oils, waxes and petrochemicals according to the Saybolt and ASTM Color scales. Results can also be displayed in terms of CIE values and spectral data.

Colour scales	Scope	Range	Resolution
Saybolt Colour (ASTM D6045, ASTM D156, JIS K2580)	Light coloured petroleum products including aviation fuels, kerosine, white mineral oils, hydrocarbon solvents and petroleum waxes	-16 (darkest) to +30 (lightest)	1
ASTM Color (ASTM D6045, ASTM D1500, JIS K2580)	A wide range of petroleum products including lubricating oils, heating oils and diesel fuels	0.5 - 8 units (resolution 0.1 units)	0.1
CIE Values (ASTM E308)	X Y Z tristimulus values; x y Y chromaticity coordinates; CIE L*a*b* colour space; △E colour difference	Defined by spectrum locus	
Spectral data (420 - 710 nm)	Transmittance	0 - 1000 ppm	0.01%

Brings Precision and Reliability to Colour Measurement

The accuracy, repeatability and reproducibility of data provided by the Lovibond® PFX880/P allow for tighter colour specifications and greater colour consistency, giving companies the confidence needed to make important decisions regarding high value consignments and refining operations. When measuring Saybolt Colour of clear, water-white products, the long sample path length enables the PFX880/P to obtain precise colour measurements, without multiplying errors.

Colour Analysis made Simple

The Lovibond® PFX880/P is an easy to use, automatic instrument, which eliminates time-consuming procedures of visual methods. There is no need to build up calibration curves as they are already established in the instrument. 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.

Confidence in Instrument Performance

The PFX880/P is a rugged colorimeter with a fabricated steel housing which is designed to function equally as a QC instrument within the laboratory or on 24 hour operation in a production environment. A diagnostic test routine allows users to conduct periodic checks on the instrument or identify faults.

Tintometer - A Century of Excellence in Colour Measurement

Tintometer is recognised around the world as a leading supplier of equipment for colour analysis. Over the years the Lovibond® name which appears on its instruments has become a hallmark for colour measurement, acknowledged by the widespread use of Lovibond® systems in process industries. This unparalleled knowledge and experience are embodied in the Lovibond® PFX880/P, ensuring excellent correlation with visual grading instruments.

Optional Items for Individual Applications

Integrated heater unit A factory fitted option to prevent heated samples such as waxes from solidifying in the cell.

Windows software for data capture on PC Allows data sets to be automatically downloaded to a PC where they can be processed or stored.

Conformance filter sets For quick and simple conformance checks, sets of graded glass filters, representing a spread of colours from the Saybolt or ASTM Color scales, are available.

Certfied colour reference standards Ideal for routine calibration and verification of test data. ASTM and Saybolt standards are supplied with full traceability to ISO 17025.

TECHNICAL SPECIFICATION

Measuring principle	16 interference filters
Spectral response	420 - 710 nm
Bandwidth	20 nm
Repeatability	
- chromaticity (x y)	± 0.0002
- transmittance	± 0.25 %
- Saybolt values	± 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	0.1 - 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

The Lovibond® PFX880/P is supplied complete with two optical glass cells (100 mm and 33 mm), a calibrated glass conformance filter, a spare lamp and instructions.