Lovibond® Colour Measurement

Tintometer® Group

TRA 500 Handheld & Benchtop Reflectance Spectrophotometer

- ▬▶ Compact, Lightweight and Easy to use Sphere Spectrophotometer
- ▬▶ Designed for Fast, Accurate and Precise Color Measurement
- ▬▶ On Screen Target Display Allows Positioning to be Perfect Every Time
- ▬▶ OnShade Software Included for FREE – Perfect for Detailed Data Analysis

Part Number: 403220

Handheld and Benchtop

With the ability of being both a handheld and a benchtop unit, the TRA 500 offers the best of both worlds. The compact, ergonomic and lightweight design of the handheld unit along with the precision-engineered benchtop stand makes the TRA 500 ideal for users on the go or in the laboratory.

Applications

The TRA 500 allows the user to measure most applications including powders, liquids, gels, pastes, granules and solid materials. To ensure consistent measurement optical glass cells of 10mm, 20mm and 30mm are included with the unit. The optical cells make it possible for the user to measure a wide range of problematic samples and still maintain a constant measurement.

Accuracy

Giving accurate and repeatable results is what the TRA 500 does best. The on board camera based locator, enables the user to position the instrument accurately on the chosen sample with minimal contact. This feature dramatically minimize the chances of geometric metamerism.

Calibration

The calibration board supplied with every TRA 500 incorporates a white tile and black calibration plate. This allows minimum and maximum readings to be checked every 24 hours.

FREE Software

As standard, the TRA 500 comes with a FREE PC software package. The OnShade software allows for a detailed data analysis which can then be shared or printed via the optional micro printer accessory.

Suitable for Multiple Applications

The versatility of the TRA 500 means its suitable for multiple applications and has the ability to report CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter Lab color spaces, $\Delta E*L*a*b*$, $\Delta E*C*h°$, $\Delta E*uv$, $\Delta E*94$, $\Delta E*cmc(2:1)$, $\Delta E*cmc(1:1)$, $\Delta E*00$, ΔE Hunter Color Difference Formulars; and can be set to D65, A, C, D50, D55, D75, F2, F7 & F11 illuminants. In addition, the TRA 500 can report a wide selection of other Colorimetric Indexes: WI (ASTM E313, CIE/ISO, AATCC, Hunter),YI (ASTM D1925, ASTM 313), TI (ASTM, E313, CIE/ISO), Metamerism Index (MI), Color stain, Color Fastness, Color Strength and Opacity. This data can be seen as either Spectral Value/Graph, Colorimetric Value, Color Difference Value/ Graph, PASS/FAIL Result, Color Offset or Samples Chromaticity values.N6

Industry

Chemical Industry | Food and Beverage Industry | Industries Others | Oil and Gas | Pharmaceutical Industry

Application

Coatings | Household Products | Plastics | Textiles

TRA 500 Handheld & Benchtop Reflectance Spectrophotometer

The TRA 500 is a cost effective quality control solution, which can be used as either a handheld or a benchtop spectrophotometer. The lightweight and ergonomic design along with the portable benchtop stand makes it ideal for quality control in the lab, field or in the manufacturing plant.I6

Technical Data

Applicable Standard	ASTM 313 ASTM D1925 ASTM E308
Color Type	Opaque
Optical Geometry	Reflect: di: 8°, de: 8° (diffused illumination, 8 degree viewing angle)
Integrating Sphere Size	48 mm
Spectrophotometric Mode	Concave Grating
Sensor	256 image Element Double Array CMOS Image Sensor
Display	3.5 inch TFT colour LCD, Capacitive Touch Screen
Interfaces	USB
Spectral Interval	10 nm
Measurement Mode	Single Measurement, Average Measurement
External Storage	2000 Standards : 20000 Samples
Location Method	Camera View Finder Locating
Measured Reflectance Range	0 - 200 %
Measurement Time	2.6 s
Measuring Aperture	Dual Aperture: 10mm/8mm & 5mm/4mm
Specular Component	SCI & SCE
Power Supply	Li-ion Battery
Color Difference Formular	ΔE^*ab, ΔE^*uv, ΔE^*94, ΔE^*cmc (2:1), ΔE^*cmc (1:1), ΔE^*00v, ΔE (Hunter)
Battery Life Time	5000 measurements with 8 hours
Other Colorimetric Index	WI (ASTM E313, CIE/ISO, AATCC, Hunter) YI (ASTM D1925, ASTM 313, TI (ASTM E313, CIE/ISO) Metamerism Index MI, Staining Fastness, Colour Fastness, Colour Strength, Opacity
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Colour Difference Values/Graph, PASS/FAIL Result, Colour Offset
Inter Instrument Agreement	MAV/SCI: $\Delta E^* \leq 0.15$
Spectral Range	400 - 700 nm
Bandwidth	10 nm
Illuminants	CIE Illuminant D65 CIE Illuminant A CIE Illuminant C CIE Illuminant D50 CIE Illuminant D55 CIE Illuminant D75 CIE Illuminant F1 CIE Illuminant F2 CIE Illuminant F3

CIE Illuminant F4
CIE Illuminant F5
CIE Illuminant F6
CIE Illuminant F7
CIE Illuminant F8
CIE Illuminant F9
CIE Illuminant F10
CIE Illuminant F11
CIE Illuminant F12

Portability	Portable
Illuminant Life Span	5 years, more than 3 million measurements
Observer	2° / 10°
Languages User Interface	English, German, French, Spanish, Portuguese, Chinese
Dimensions	184 x 105 x 77 mm

Delivery Scope

- TR 500 Sphere Spectrophotometer
- TRA Portable benchtop Stand
- OnShade PC Software
- White and Black Calibration Board
- White background plate
- Dust Cover
- USB Cable External DC Power Supply
- USB Stick with User Manuals in English, French, German, Spanish, Portuguese and Chinese
- Sturdy Carrying Case
- 10 mm, 20 mm and 30 mm Optical Glass cells
- Cell Cover

Accessories

Title	Part Number
W586/OG/10 Optical Glass	605890
W586/OG/10 Optical Glass (pack of 5)	605895
W586/OG/20 Optical Glass	605900
W586/OG/20 Optical Glass (pack of 5)	605905
W586/OG/30 Optical Glass	605910
W586/OG/30 Optical Glass (pack of 5)	605915

P.O. Box 1128
Granger, IN 46530

Lazar Scientific, Inc.

574-271-7020
sales@lazarsci.com
www.lazarsci.com

25 YEARS
COMMITTED TO YOU
EST 1998