

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 Colour Measurement
- On Screen Target Display Allows Positioning to be Perfect Every Time
- OnShade Software Included for FREE – Perfect for Detailed Data Analysis

货号: 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 colour spaces, $\Delta E^*L^*a^*b^*$, $\Delta E^*C^*h^\circ$, ΔE^*uv , ΔE^*94 , $\Delta E^*cmc(2:1)$, $\Delta E^*cmc(1:1)$, ΔE^*00 , ΔE Hunter Colour Difference Formulas; 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), Colour stain, Colour Fastness, Colour Strength and Opacity. This data can be seen as either Spectral Value/ Graph, Colorimetric Value, Colour Difference Value/ Graph, PASS/ FAIL Result, Colour Offset or Samples Chromaticity values.N6

行业

其他行业 | 化工行业 | 医药行业 | 油气 | 食品和饮料行业

应用

塑料 | 日用品 | 涂料 | 纺织品

光源寿命 5 years, more than 3 million measurements

观测者 2° / 10°

多语言操作界面 英文, 德文, 法文, 西班牙, 葡萄牙, 中文

尺寸 184 x 105 x 77 mm

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.16

Technical Data

Applicable Standard	ASTM 313 ASTM D1925 ASTM E308
颜色类型	Opaque
光学测量结构	Reflect: di: 8°, de: 8° (diffused illumination, 8 degree viewing angle)
积分球尺寸	48 mm
分光模式	Concave Grating
Sensor	256 image Element Double Array CMOS Image Sensor
显示	3.5 inch TFT colour LCD, Capacitive Touch Screen
数据接口	USB
光谱间隔	10 nm
测量模式	Single Measurement, Average Measurement
外部存储器	2000 Standards : 20000 Samples
定位方式	Camera View Finder Locating
反射率量程	0 - 200 %
测量时间	2.6 s
测量孔径	Dual Aperture: 10mm/8mm & 5mm/4mm
镜面反射	SCI & SCE
色差测量	ΔE^*ab , ΔE^*uv , ΔE^*94 , ΔE^*cmc (2:1), ΔE^*cmc (1:1), ΔE^*00v , ΔE (Hunter)
电池寿命	5000 measurements with 8 hours
其他颜色指数	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
显示数据	Spectrogram/Values, Samples Chromaticity Values, Colour Difference Values/Graph, PASS/FAIL Result, Colour Offset
仪器台间差	MAV/SCI: $\Delta E^* \leq 0.15$
光谱范围	400 - 700 nm
带宽	10 nm
照明体	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
便携性	手提

标准配置文本

- 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

标题	货号
W586/OG/10 光学玻璃	605890
W586/OG/10 光学玻璃, 5 件	605895
W586/OG/20 光学玻璃	605900
W586/OG/20 光学玻璃, 5 件	605905
W586/OG/30 光学玻璃	605910
W586/OG/30 光学玻璃, 5 件	605915

Tintometer GmbH

Lovibond® Water Testing
Schleefstraße 8-12
44287 Dortmund
Tel.: +49 (0)231/94510-0
sales@lovibond.com
www.lovibond.com
德国

The Tintometer Limited

Lovibond House
Sun Rise Way
Amesbury, SP4 7GR
Tel.: +44 (0)1980 664800
Fax: +44 (0)1980 625412
sales@lovibond.uk
www.lovibond.com
英国

Tintometer China

9F, SOHO II C.
No.9 Guanghualu,
Chaoyang District,
Beijing, 100020
Customer Care China Tel.: 4009021628
Tel.: +86 10 85251111 Ext. 330
Fax: +86 10 85251001
chinaoffice@tintometer.com
www.lovibond.com
中国

Tintometer South East Asia

Unit B-3-12, BBT One Boulevard,
Lebuh Nilam 2, Bandar Bukit Tinggi,
Klang, 41200, Selangor D.E
Tel.: +60 (0)3 3325 2285/6
Fax: +60 (0)3 3325 2287
lovibond.asia@tintometer.com
www.lovibond.com
马来西亚

Tintometer Brazil

Caixa Postal: 271
CEP: 13201-970
Jundiaí – SP
Tel.: +55 (11) 3230-6410
sales@lovibond.us
www.lovibond.com.br
巴西

Tintometer Inc.

6456 Parkland Drive
Sarasota, FL 34243
Tel: 941.756.6410
Fax: 941.727.9654
sales@lovibond.us
www.lovibond.us
美国

Tintometer India Pvt. Ltd.

Door No: 7-2-C-14, 2nd, 3rd & 4th Floor
Sanathnagar Industrial Estate,
Hyderabad, 500018
Telangana
Tel: +91 (0) 40 23883300
Toll Free: 1 800 599 3891/ 3892
indiaoffice@lovibond.in
www.lovibondwater.in
印度

Tintometer Spain

Postbox: 24047
08080 Barcelona
Tel.: +34 661 606 770
sales@tintometer.es
www.lovibond.com
西班牙