

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

Artigo No: 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

Indústria

Indústria de Alimentos e Bebidas | Indústria Farmacêutica |
Indústria Química | Óleo e Gás | Outras Indústrias

Aplicação

Plásticos | Produtos Domésticos | Revestimentos | Têxteis

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

Dados Técnicos

Applicable Standard	ASTM 313 ASTM D1925 ASTM E308
Tipo de Cor	Opaque
Geometria Óptica	Reflect: di: 8°, de: 8° (diffused illumination, 8 degree viewing angle)
Tamanho da Esfera de Integração	48 mm
Modo Espectrofotométrico	Concave Grating
Sensor	256 image Element Double Array CMOS Image Sensor
Display	3.5 inch TFT colour LCD, Capacitive Touch Screen
Interfaces	USB
Intervalo Espectral	10 nm
Modo de Medição	Single Measurement, Average Measurement
Armazenamento Externo	2000 Standards : 20000 Samples
Método de Localização	Camera View Finder Locating
Faixa de Reflectância Medida	0 - 200 %
Tempo de Medição	2.6 s
Abertura de Medição	Dual Aperture: 10mm/8mm & 5mm/4mm
Componente Especular	SCI & SCE
Fórmula de Diferença de Cor	ΔE^*ab , ΔE^*uv , ΔE^*94 , ΔE^*cmc (2:1), ΔE^*cmc (1:1), ΔE^*00v , ΔE (Hunter)
Tempo de Vida da Bateria	5000 measurements with 8 hours
Outro Índice Colorimétrico	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
Dados Exibidos	Spectrogram/Values, Samples Chromaticity Values, Colour Difference Values/Graph, PASS/FAIL Result, Colour Offset
Acordo Entre Instrumentos	MAV/SCI: $\Delta E^* \leq 0.15$
Faixa Espectral	400 - 700 nm
Largura de Banda	10 nm
Iluminantes	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

Portabilidade	Portátil
Vida Útil do Iluminante	5 years, more than 3 million measurements
Observador	2° / 10°
Idiomas da Interface do Usuário	Inglês, Alemão, Francês, Espanhol, Português, Chinês
Dimensões	184 x 105 x 77 mm

Texto do Escopo de Entrega

- 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

Título	Artigo No
W586/OG/10 vidro ótico	605890
W586/OG/10 vidro ótico, 5 pçs.	605895
W586/OG/20 vidro ótico	605900
W586/OG/20 vidro ótico, 5 pçs.	605905
W586/OG/30 vidro ótico	605910
W586/OG/30 vidro ótico, 5 pçs.	605915

Tintometer GmbH

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

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
Reino Unido

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
China

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
Malásia

Tintometer Brazil

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

Tintometer Inc.

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

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
Índia

Tintometer Spain

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