

Lovibond® Colour Measurement Tintometer® Group



TR 500 Spectrophotometer (4 mm Aperture)



- 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

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Handheld and Portable

Weighing only 600 grams, the TR 500 is the perfect lightweight portable spectrophotometer. It's compact and ergonomic design offers easy one-handed operation, helping to prevent operator fatigue and enabling more measurements per hour. Offering the possibility of 5000 measurements with 8 hours battery life enables the TR 500 to be used anywhere on site for a prolonged period of time.

Accuracy

Giving accurate and repeatable results is what the TR 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.

Aperture Options

Choosing the correct aperture size for your surface is extremely important for accurate measurement. This is why the TR 500 has three aperture options available in either 8mm, 4mm or 1x3mm. This choice of customised aperture helps to ensure the instrument is perfect for your measurement needs.

Calibration

The calibration board supplied with every TR 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 TR 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 TR 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 TR 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.

Indústria

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

Aplicação

Plásticos | Produtos Domésticos | Revestimentos | Têxteis

TR 500 Spectrophotometer (4 mm Aperture)

The TR 500 is a cost effective handheld spectrophotometer with a high-end specification. The ergonomic design, flexibility and on screen target display makes it ideal for quality control in the lab, field or in the manufacturing plant. Available in either 8mm, 4mm or 1x3mm aperture, the TR 500 offers the flexibility to choose the right measurement size for your chosen surface.

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
Fonte de Alimentação	Li-ion Battery
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
- OnShade PC Software
- White and Black Calibration Board
- Dust Cover
- USB Cable
- External DC Power Supply
- USB Stick with User Manuals in English, French, German, Spanish, Portuguese and Chinese
- Sturdy Carrying Case

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