

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

Code: 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 metamorphism.

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

Industrie

Autres industries | Industrie agroalimentaire et boissons | Industrie chimique | Industrie pharmaceutique | Pétrole et gaz

Applications

Matières plastiques | Produits ménagers | Revêtements | 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.16

Fiche technique

Applicable Standard	ASTM 313 ASTM D1925 ASTM E308
Type de Couleur	Opaque
Géométrie Optique	Reflect: di: 8°, de: 8° (diffused illumination, 8 degree viewing angle)
Intégration de la taille de la sphère	48 mm
Mode Spectrophotométrique	Concave Grating
Sensor	256 image Element Double Array CMOS Image Sensor
Display	3.5 inch TFT colour LCD, Capacitive Touch Screen
Interfaces	USB
Intervalle spectral	10 nm
Mode de Mesure	Single Measurement, Average Measurement
Stockage externe	2000 Standards : 20000 Samples
Méthode de Location	Camera View Finder Locating
Plage de Réflectance Mesurée	0 - 200 %
Heure de la mesure	2.6 s
Ouverture de Mesure	Dual Aperture: 10mm/8mm & 5mm/4mm
Composant Spéciale	SCI & SCE
Formulaire de Différence de Couleur	ΔE^*ab , ΔE^*uv , ΔE^*94 , ΔE^*cmc (2:1), ΔE^*cmc (1:1), ΔE^*00v , ΔE (Hunter)
Durée de vie batterie	5000 measurements with 8 hours
Autre Indice Colorimétrique	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
Données Affichées	Spectrogram/Values, Samples Chromaticity Values, Colour Difference Values/Graph, PASS/FAIL Result, Colour Offset
Corrélation inter-instrument	MAV/SCI: $\Delta E^* \leq 0.15$
Domaines spectraux	400 - 700 nm
Largeur de bande	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

Portabilité	Portable
Durée de Vie de l'Illuminant	5 years, more than 3 million measurements
Observateur	2° / 10°
Langues interface d'utilisateur	Anglais, Allemand, Français, Espagnol, Portugais, Chinois
Dimensions	184 x 105 x 77 mm

Contenu de livraison

- 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

Titre	Code
W586/OG/10 verre optique	605890
W586/OG/10 verre optique, 5 pc	605895
W586/OG/20 verre optique	605900
W586/OG/20 verre optique, 5 pc	605905
W586/OG/30 verre optique	605910
W586/OG/30 verre optique, 5 pc	605915

Tintometer GmbH

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

The Tintometer Limited

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

Tintometer China

Room 1001, China Life Tower
16 Chaoyangmenwai Avenue,
Beijing, 100020
Customer Care China Tel.: 4009021628
Tel.: +86 10 85251111 App. 330
Fax: +86 10 85251001
chinaoffice@tintometer.com
www.lovibond.com
Chine

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
Malaisie

Tintometer Brazil

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

Tintometer Inc.

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

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
Inde

Tintometer Spain

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