Lovibond® Colour Measurement

Tintometer® Group

TRA 520 Handheld & Benchtop Sphere 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

Part Number: 403225

Handheld and Benchtop

With the ability of being both a handheld and a benchtop unit, the TRA 520 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 520 ideal for users on the go or in the laboratory.

Applications

The TRA 520 allows the user to measure most applications including powders, liquids, gels, pastes, granules and solid materials. Users can also measure florescent materials with UV In and UV Out.

Accuracy

Giving accurate and repeatable results is what the TRA 520 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. The TRA 520 gives you the flexibility to adjust aperture size from 10mm/8mm to 5mm/4mm with the switch of a button. This adjustability of aperture helps to ensure the instrument is perfect for your measurement needs.

Calibration

The calibration board supplied with every TRA 520 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 520 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 520 means its suitable for multiple applications and has the ability to report CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter Lab colour spaces, ΔE*L*a*b*, ΔE*C*h°, ΔE*uv, ΔE*94, ΔE*cmc(2:1), ΔE*cmc(1:1), ΔE*00, ΔE Hunter Colour Difference Formulars; and can be set to D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12 illuminants. In addition, the TRA 520 can report a wide selection of other Colorimetric Index's: 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 valuesN6

Industry

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

Application

Coatings | Household Products | Plastics | Textiles

TRA 520 Handheld & Benchtop Sphere Spectrophotometer

The TRA 520 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. Available with switchable apertures of 10mm/8mm & 5mm/4mm and the ability to measure florescent materials with UV In and UV Out makes the TRA 520 the perfect cost-effective handheld and benchtop spectrophotometer.N6I6

Technical Data

Applicable Standard	ASTM 313 ASTM D1925 ASTM E308
Colour 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
Repeatability	MAV/SCI: ΔE* ≤0.03
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
Colour 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: ΔE* ≤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°
Environmental Conditions	0 - 40 °C, 0 - 85 % Relative Humidity (non condensing), Altitude < 2000 m
Stock Conditions	-20 - 50 °C, 0 - 85 % Relative Humidity (non condensing)
Languages User Interface	English, German, French, Spanish, Portuguese, Chinese
Dimensions	184 x 105 x 77 mm

Delivery Scope

- TR 520 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

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