

Lovibond® Colour Measurement Tintometer® Group



TR 515 Spectrophotometer



- Identify colour variations, enabling corrective measures to be taken and ensure products meet required standards
- Reduce waste, rework, and the need for multiple iterations, leading to cost savings
- Ensure the colour of your product is consistent to meet high customer expectations
- Perfect for a variety of different industries including paints, coatings, plastics, textiles, printing, food, cosmetics, and creams

Part Number: 403032

How can the TR 515 help you?

Consistency

Colour is often a critical factor in determining the quality of a product. Manufacturers need to ensure that the colours of their products are consistent to meet customers' expectations. By using the TR 515, you can ensure your products meet these standards.

Accuracy

The TR 515 can identify any variations in colour, enabling manufacturers to take corrective measures and ensure that the products meet the required standards.

Efficiency

Manufacturing processes often involve the use of colourants or dyes. By measuring the colour of these materials, manufacturers can ensure that they are using the correct amount of colourant and avoid waste. The TR 515 can help reduce costs and improve efficiency in the manufacturing process.

Cost-effectiveness

Accurate colour measurement helps in reducing waste, rework, and the need for multiple iterations, leading to cost savings for the manufacturers.

Branding

A product's colour is often a key part of its branding and marketing. Customers may associate a particular colour with a brand, and manufacturers need to ensure that their products are consistent. By using the TR 515, you can ensure products match the desired brand colour and help maintain a strong brand image.

Compliance

Some industries, such as food and pharmaceuticals, have strict regulations regarding the colour of their products. By using the TR 515,

you can ensure that products comply with these regulations and avoid potential legal issues.

Industry

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

Application

Coatings | Household Products | Plastics | Textiles

TR 515 Spectrophotometer

The TR 515 offers accurate and reliable colour management that fits in the palm of your hand. The 45°/0° geometry and ergonomic design makes the unit perfect for the whole manufacturing process from use on the plant floor, production line, warehouse, or laboratory.

Technical Data

Applicable Standard	ASTM 313 ASTM D1925 ASTM D7843 ASTM E308
Colour Type	Opaque
Optical Geometry	45°/0° (45° ring-shaped illumination, vertical viewing)
Integrating Sphere Size	48 mm
Spectrophotometric Mode	Concave Grating
Sensor	256 image Element Double Array CMOS Image Sensor
Repeatability	MAV/SCI: $\Delta E^* \leq 0.03$
Display	3.5 inch TFT colour LCD, Capacitive Touch Screen
Interfaces	USB Bluetooth 4.0
Spectral Interval	10 nm
Measurement Mode	Single Measurement, Average Measurement
External Storage	1000 Standards : 30000 Samples
Location Method	Camera View Finder Locating
Measured Reflectance Range	0 - 200 %
Measurement Time	1.5 s
Measuring Aperture	MAV: \varnothing 8mm / \varnothing 10 mm ; SAV: \varnothing 4 mm / \varnothing 5 mm
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) MI (Metamerism Index) 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	Within ΔE^*_{ab} 0.15 (Average for 12 BCRA Series II colour tiles)
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, Chinese
Dimensions	184 x 105 x 77 mm

Delivery Scope

- TR 515, 45°/0°, Spectrophotometer
- OnShade PC Software
- White and Black Calibration Board
- Dust Cover
- USB Cable
- External DC Power Supply
- USB Stick with User Manuals in English and Chinese
- Sturdy Carrying Case

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