

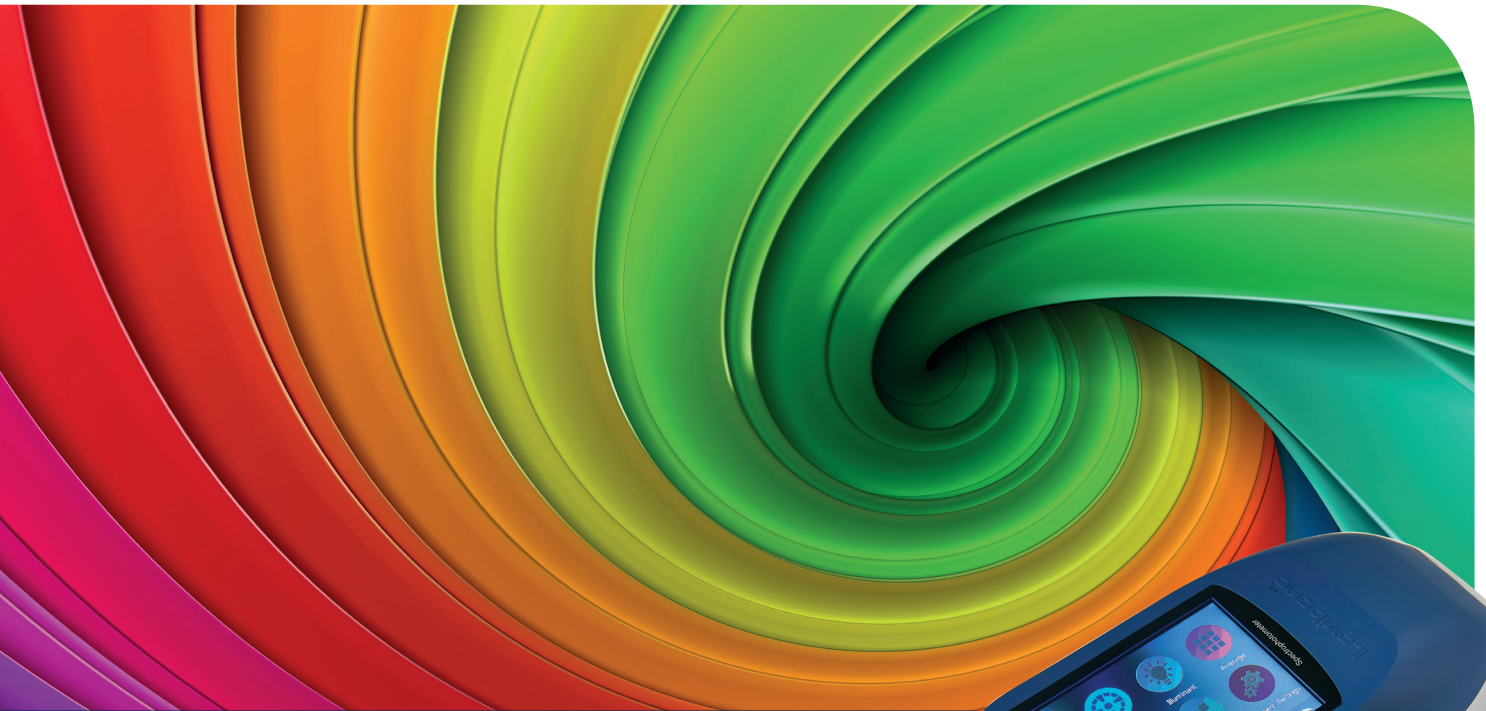
# Lovibond® Colour Measurement

## Tintometer® Group



IGZ Instruments AG  
Furtbachstrasse 17  
8107 Buchs ZH

Tel. +41 44 456 33 33  
igz.ch igz@igz.ch



## TR 520 / 500 Spectrophotometer

- Compact, ergonomic design for comfortable handling and fingertip control
- Intuitive icon-based display for fast and easy operation
- Robust construction for a long life in both production and laboratory environments
- Specially designed accessories for a wide range of materials including powder, liquid, gel, paste, granules and solid material
- On-board camera-based locator makes it easy to see what you are measuring for repeatable, stable results
- Measure large or small area views with easy interchangeability
- Set customised parameters for quality control
- Free OnShade PC-based software which allows graphs, statistical process control, shade searching, all available colour, space, colour differences and indices
- **Bluetooth®** connectivity where available
- Measure fluorescent materials with UV in and UV out
- Multiple language support

### Market sectors

Coatings

Food and Beverage

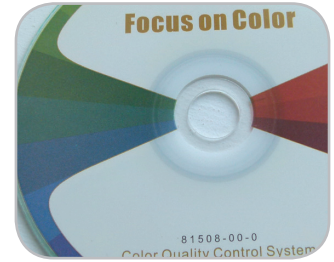
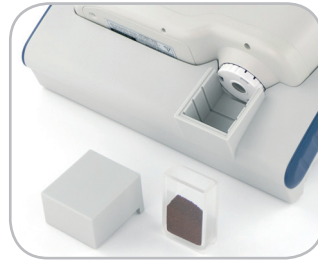
Household Products

Medical and Clinical

Plastics



# TR 520 / 500 Accessories



Specially designed accessories for a wide range of materials including powder, liquid, gel, paste, granules and solid material

Specifications	TR 520	TR 500
Optical Geometry	Reflect: di: 8°, de: 8° (diffused illumination, 8 degree viewing angle)	
Integrating Sphere Size	48mm	
Light Source	Combined LED Light, UV Light	Combined LED Light
Spectrophotometric Mode	Concave Grating	
Sensor	256 image Element Double Array CMOS Image Sensor	
Wavelength Range	400-700nm	
Wavelength Interval	10nm	
Semiband Width	10nm	
Measured Reflectance Range	0-200%	
Measuring Aperture	Dual Aperture: 10mm/8mm & 5mm/4mm	Customized Aperture: 8mm/4mm/1x3mm
Specular Component	SCI & SCE	
Colour Space	CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter Lab	
Colour Difference Formular	$\Delta E^*_{ab}$ , $\Delta E^*_{uv}$ , $\Delta E^*_{94}$ , $\Delta E^*_{cmc}$ (2:1), $\Delta E^*_{cmc}$ (1:1), $\Delta E^*_{00}$ , $\Delta E$ (Hunter)	
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	
Observer Angle	2° / 10°	
Illuminant	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12	D65, A, C, D50, D55, D75, F2, F7, F11
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Colour Difference Values/Graph, PASS/FAIL Result, Colour Offset	
Measuring Time	2.6s	
Repeatability	MAV/SCI: $\Delta E^* \leq 0.03$	MAV/SCI: $\Delta E^* \leq 0.05$
Inter-Instrument Agreement	MAV/SCI: $\Delta E^* \leq 0.15$	MAV/SCI: $\Delta E^* \leq 0.2$
Measurement Mode	Single Measurement, Average Measurement	
Locating Method	Camera View Finder Locating	
Battery	Li-ion battery. 5000 measurements with 8 hours	
Dimensions	184mm L x 77mm W x 105mm H	
Weight	600g	
Illuminant Life Span	5 years, more than 3 million measurements	
Display	3.5 inch TFT colour LCD, Capacitive Touch Screen	
Data Port	USB, Bluetooth® 4.0	
Data Storage	2000 Standards : 20000 Samples	
Languages	English, French, German, Spanish, Portuguese, Chinese	
Operating Environment	0~40°C, 0~85° Relative Humidity (non condensing), Altitude < 2000m	
Storage Environment	-20~50°C, 0~85° Relative Humidity (non condensing)	
Standard Accessories Included	PC OnShade Software, White & Black Calibration Cavity, Power Adapter, Built-in Li-ion Battery, User Guide	
Optional Accessories	Micro Printer, TR Accessory (for Liquids, Powers and Gels)	

Order No	Product	Order No	Product
403035	TR 520 (8mm and 4mm Aperture)	403042	TR 500 (1 x 3mm Aperture)
403040	TR 500 (8mm Aperture)	403225	TRA 520
403041	TR 500 (4mm Aperture)	403220	TRA 500

[www.lovibond.com](http://www.lovibond.com)
[sales@tintometer.com](mailto:sales@tintometer.com)
[Download form](#)

**The Tintometer Ltd**  
T: +44 (0)1980 664800  
F: +44 (0)1980 625412

**Tintometer Inc**  
T: +1 941 756 6410  
F: + 1941 727 9654

**Tintometer GmbH**  
T: +49 (0) 231/94510-0  
F: +49 (0) 231/94510-20

**Tintometer – China**  
T: +86 10 8525 1111 Ext 330  
F: +86 10 85251001

**Tintometer – South East Asia**  
T: +603 3325 2286  
F: +603 3325 2287

**Tintometer India Pvt. Ltd**  
T: +91 (0) 40-23883300  
Toll Free: 1800 599 3891/92

Lovibond® and Tintometer® are Registered Trade Marks of The Tintometer® Group. All translations and transliterations of LOVIBOND® & TINTOMETER® are asserted as Trade Marks of The Tintometer Limited. Registered Office: Lovibond House, UK. Registered in England No. 45024. Errors and Omissions Excepted – Content Subject to alterations without notice. The Bluetooth® mark, figure mark and combination mark are trademarks owned by the Bluetooth SIG and any use by the Tintometer® Group is under license. Please note, Bluetooth® is not available for all regions. Please contact the local Lovibond® representative for details.