### Lovibond® Colour Measurement

### Tintometer® Group



## Spectrophotometers - The RT Range

Defining the colour of your product and ensuring colour accuracy every time is critical to long-term success.

Reliable and repeatable colour test results are the key to ensuring final product quality and also to minimising production costs. Speed of analysis can also be vital for efficient process control. Simplicity of operation helps to reduce error and increase productivity.

The RT range of spectrophotometers gives precise, *absolute* data; as opposed to human visual *subjective* data. Light source, surface and the human observer can all be quantified allowing objective assessment.

Colour co-ordinates (CIE L\*a\*b\*, CIE L\*C\*h\*, CIE XYZ), difference equations ( $\Delta$ E\*, DE<sub>cmc</sub>), indices and spectral data allow exact standards to be communicated to all and compared to trials. There is no more reliance on old and faded physical samples and rough estimates that result in painful (and often expensive) miscommunications.

#### RT100+ and RT200+

are compact, handheld spectrophotometers, giving spectral reflectance data for quality control of colour. The RT100+ consists of a handheld spectrometer unit with an integrated measuring head (45°/0° measuring geometry) for precision colour measurement and control of regular surfaces. The RT200+ has a similar spectrometer unit but is supplied with a flexible, fibre-optic measuring head (0°/0° measuring geometry).

#### RT300, RT400 and RT500

are versatile, portable spectrophotometers in a choice of diffuse/8° sphere or 0°/45° optical geometry that are designed to give fast, precise and accurate colour measurement information on a range of products. They provide absolute and difference measurements in various colorimetric systems.

#### RT300 and RT500

can be combined with the OnColor software package allowing measurement data to be downloaded, analysed in detail and stored indefinitely on a PC. They can also be combined with a wide range of accessories allowing the measurement of liquids, gels, powders and other materials.

#### RT600 and RT700

are compact, bench-top spectrophotometers in a choice of diffuse/8° sphere or 0°/45° opticial geometries.

#### RT850i and RT850f

are also compact, bench-top spectrophotometers with diffuse/8° geometry but with a large (25 mm diameter) measurement port capability and also the ability to make diffuse transmittance measurements when used with the optional transmission holder kit.

# The RT Range

| RT Model<br>Number | Geometry          | Illuminants                                 | Standard<br>Observers | Measurement<br>Area | Short Term<br>Repeatability                 | Storage                            | Display              |
|--------------------|-------------------|---|-----------------------|---------------------|---|------------------------------------|----------------------|
| 100+               | 0°/45°            | RT100<br>Software                           | RT100<br>Software     | 3 mm                | ΔE* ≤ 0.1 on<br>white ceramic<br>reference  | RT100<br>Software                  | No Display<br>PC     |
| 200+               | Fibre optic 0°/0° | RT200<br>Software                           | RT200<br>Software     | 1 to 3 mm           | ΔE* ≤ 0.1 on<br>white ceramic<br>reference  | RT200<br>Software                  | No Display<br>PC     |
| 250                | Diffuse/8°        | OnColor<br>Software                         | OnColor<br>Software   | 8 mm                | ΔE* ≤ 0.1 on<br>white ceramic<br>reference  | OnColor<br>Software                | No Display<br>PC     |
| 300 Series         | 0°/45°            | C, D50, D65,<br>D75, A, F2, F7,<br>F11, F12 | 2°, 10°               | 4, 7, 15 mm         | ΔE* ≤ 0.1 on white ceramic reference        | 1024<br>standards;<br>2000 samples | In-built graphic LCD |
| 400                | Diffuse/8°        | C, D50, D65,<br>D75, A, F2, F7,<br>F11, F12 | 2°, 10°               | 8 mm                | ΔE* ≤ 0.1 on white ceramic reference        | 1024<br>standards;<br>2000 samples | In-built graphic LCD |
| 500 Series         | Diffuse/8°        | C, D50, D65,<br>D75, A, F2, F7,<br>F11, F12 | 2°, 10°               | 4, 8, 14 mm         | ΔE* ≤ 0.05 on<br>white ceramic<br>reference | 1024<br>standards;<br>2000 samples | In-built graphic LCD |
| 600                | 0°/45°            | OnColor<br>Software                         | OnColor<br>Software   | 8 mm                | ΔE* ≤ 0.1 on white ceramic reference        | OnColor<br>Software                | No Display<br>PC     |
| 700                | Diffuse/8°        | OnColor<br>Software                         | OnColor<br>Software   | 8 mm                | ΔE* ≤ 0.1 on white ceramic reference        | OnColor<br>Software                | No Display<br>PC     |
| 850i/850f          | Diffuse/8°        | OnColor<br>Software                         | OnColor<br>Software   | 6, 10, 25 mm        | ΔE* ≤ 0.03 on white ceramic reference       | OnColor<br>Software                | No Display<br>PC     |

#### **OnColor**

is an Open Platform software package that works on any of the offthe-shelf spectrophotometers that are currently available from all active suppliers and legacy systems such as Macbeth.

OnColor is available for all spectrophotometers from handheld, portable instruments - such as the RT range from Lovibond® Tintometer® - to benchtop instruments. It is equally as suited to quick, portable readings as to the demanded accuracy of high-end solutions. Its flexibility extends further: the software can either be used out-of-the-box with pre-programmed screen displays; alternatively, it is fully customizable to enable the users to portray information tailored to their needs.

