

# How to measure colour of wooden surfaces

## with ColorLite Spectrophotometers

Colour is an important quality characteristic of wood products. Implementing an objective colour quality control is the best way to guarantee reproducible colours. The use of a spectrophotometer is simple and prevents visual misjudgements in colour evaluation. The measured values can be output in a CIE L\*a\*b\* colour scale. The measured values of a sample can be compared with a specified standard.

The problem with wood surfaces is the inhomogeneity. Therefore, a large measuring area is required. Our customers successfully using our handheld spectrophotometers on a daily basis, to guarantee the reproducibility of the colour.

The ColorLite spectrophotometers sphRG2 or sph870/900 can be used to measure the colour of wooden surfaces. The d/0° measuring geometry has a measuring surface of 38 mm.



**Spectrophotometer sphRG2**

# Using the spectrophotometer

## 1. Settings

Configure the number "Scans" to three or more, depending on the homogeneity of the samples. Select in the menu "Settings" "Number of scans".

## 2. Calibration

Calibrate the instrument using the supplied black and white standards. Select in the menu "Calibration". First using the black reference. Complete the calibration using the certified white standard

**Note:** The white standard tile must be 100% clean, no scratches or fingerprints. We recommend using Isopropyl alcohol cleaner.

## 3. Measurement

Select in the menu "Measure". Choose between measuring a standard or sample. Place the probe head on the sample. Take care that the probe head is in solid contact with the sample. Press the "Enter" key (sph870/900) or the trigger button (sphRG2)

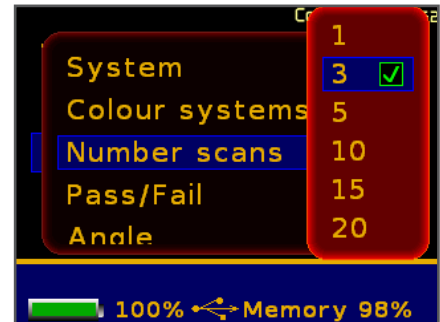
Take a single colour reading on the sample. Move to another area on the sample and take a second reading. Move again and take a third reading.

## 4. Review results

The result is automatically shown as an average value. Using the UP and DOWN Keys it is possible to view different results. For example, the absolute values or differences between the sample measurement of a batch and a reference standard sample.

Results can be stored on the device and later using the ColorDaTra software transferred to a PC.

Using the ColorDaTra Professional it is possible to start the measurement from the ColorDaTra software. The results are then automatically transferred to the PC.



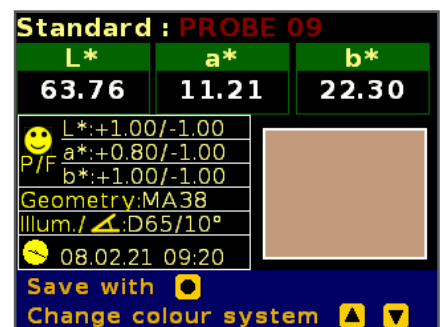
1.



2.



3.



4.



## Instruments for colour measurement of wood products

- Spectrophotometer RG2-d/0° (Article no. E11780)
- Spectrophotometer sph870 with d/0° probe head (Article no. E11341)
- Spectrophotometer sph900 with d/0° probe head (Article no. E11141)
- Alternatively, the sph870/900 with 45°/0° geometry and additional MA38-probe head adapter can be used.(Article no. 13331)

## About ColorLite

ColorLite GmbH is a family-owned company based in South Lower Saxony and is specializes in the field of spectral color measurement technology. The development and production of all instruments takes place in Germany.

The founder David Pryor was a student at the University of Applied Sciences, Hannover. He first developed the spectrophotometer sph850a that uses LEDs as a light source. This innovation was a major advance in the field of colour measurement.

ColorLite's product range has expanded steadily over the years. In addition to hand-held units and benchtop spectrophotometers, ColorLite offers colour measurement technology for inline production control.

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