

Lovibond® Colour Measurement

Tintometer® Group



NC 45

Non Contact Spectrophotometer

Enables sample measurements from a distance, eliminating surface distortion

The Lovibond® NC 45 Non Contact 45/0° geometry benchtop spectrophotometer is designed for the colour measurement of many types of wet and dry samples including powders, pastes, gels, plastics and paints. The versatile form factor also simplifies measurements on two and three dimensional objects. The NC 45 utilizes LED illumination, ensuring efficient robust functionality.

The Lovibond® NC 45 is a solution for many of the measurement problems that have remained unsolved. Products that normally require protection from physical contact such as liquids and pastes, or in which the surface appearance is changed by the presentation method, such as when the sample is pressed behind glass, can now be measured in their natural, unaltered state, as the eye sees the sample.

Lovibond® NC 45 : Non Contact Spectrophotometer

PRODUCT FEATURES

- Non-contact colour measurement allows sample measurements from a distance, eliminating surface distortion caused by contact based measurement methods
- Full system LED illumination provides years of reliable performance
- LED illumination is unaffected by ambient light conditions
- Line of Sight™ visibility to the sample enables technicians to quickly and easily position the sample for measurement
- Active Visual Targeting™ projects a prominent illuminated target ring onto the sample for precise and accurate measurements
- Dual measurement spot sizes, 6 mm (1/4") and 12 mm (1/2") which can quickly and easily be switched without the need to recalibrate
- Integrated gloss sensor provides 60° correlated gloss values
- Versatile design improves measurement capabilities on two and three dimensional objects
- Flexible Quality Control software allows user customization (provided separately)

PRODUCT APPLICATIONS

Powders and Tablets

Powders are often difficult to measure due to the uneven texture of the product. Sample presentation methods such as glass barriers often distort the appearance of the material. The NC 45 eliminates this requirement, enabling powders to be measured in their natural state. The integrated gloss sensor provides 60° correlated gloss values, simplifying measurements on two and three dimensional objects.

Gels, Liquids, Creams and Pastes

Gels, liquids, creams and pastes can now be measured in their natural state without the need to provide protection from the viewing lens.

The NC 45 standard "spoon" and "petri dish" adaptors allow accurate and repeatable sample presentation. Customised adaptors, for unique requirements, further increase flexibility. Sample preparation and clean up is fast and simple.

NC 45 SPECTROPHOTOMETER STAND

The NC 45 mounting stand allows easy, accurate height adjustment of the Lovibond® NC 45, accommodating measurements on samples of varying heights and shapes. The measurement distance is accurately set by inserting the hex driver into the slot in the base. When inserted, the hex driver casts a shadow onto the sample that, when the NC 45 is adjusted to the correct measurement distance, precisely bisects the centre of the NC 45 illuminated target ring. This eliminates guesswork and ensures accurate and repeatable measurement results on virtually any sample including wet gels and powders and other difficult to measure products.

- Incremental adjustment of 0.064" per revolution
- Accommodates samples up to 8 1/8" (20.6cm) high
- Accommodates right and left handed uses
- Engraved cross hairs on sample base for repeatable sample positioning
- Rugged Anodized base and cradle

W. 14" (35.6 cm) : L. 15 1/4" (38.7 cm) : H. 16" (40.6 cm)

SPECIFICATIONS

Instrument Type:	Spectrophotometer
Geometry:	45/0° dual illumination
Illumination:	Full spectrum LED
Spectral Engine:	True Dual beam, 31 channel
Spectral Range:	400 - 700 nm
Spectral Interval:	10 nm measured, 10 nm output
Measurement Range:	0-150% reflectance
Calibration Interval:	Once per week or temperature shift > 14° C (25.2° F) (self detected)
Measurement Spot Size:	6 mm (1/4") and 12 mm (1/2")
Measurement Distance:	38 mm (1 1/2") nominal lens to measurement surface
Repeatability:	6 mm 0.035 ΔE_{ab} Maximum 12 mm 0.025 ΔE_{ab} Maximum (white ceramic tile)
Inter-instrument Agreement:	6 mm 0.15 avg ΔE_{ab} (12 BCRA tiles) 12 mm 0.15 avg ΔE_{ab} (12 BCRA tiles)
Gloss Geometry:	45/0°, 60° Correlated
Gloss Repeatability:	0-10 GU, +/- 0.2 GU 10-100 GU, +/- 0.6 GU
Gloss Reproducibility:	5-92 GU 3.0 GU maximum, 1.5 GU average
Operating Temp:	10° - 40°C (50° - 104°F)
Humidity:	0-85% relative non-condensing
Operating Voltage:	24V +/- 2 VDC @ 1.2 A Max
PC Requirement:	Microsoft® Windows® XP, 32 bit (not supplied)
Communication:	USB 2.0
Storage:	-20° - 70° C (4° F - 158° F)
Lamp Life:	>20 million flashes
Functional Size:	L: 9.75 in (24.80 cm) W: 6.0 in (15.24 cm) H: 5.57 in (14.60 cm)
Functional Weight:	4.931 lbs (2.24 kg)
Safety Compliance:	UL 61010-1, CSA 22.2 No. 1010.1 and IEC (EN) 61010-1
Altitude:	2000 m
Pollution Degree:	2
Overvoltage:	Category II

Design and specifications subject to change without notice.

ORDER CODES

400810	NC 45 Spectrophotometer
400820	NC 45 Spectrophotometer Stand
400830	NC 45 Spectrophotometer Table
400840	NC 45 Spectrophotometer Spoon
400850	NC 45 Spectrophotometer Petri Dish



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