

# Portable 45/0 Spectrophotometer



**45G CT**



## Close Tolerance Control – Color and Gloss in One Unit

The Datacolor 45G CT provides complete appearance control for the most rigorous supply chain applications. With best-in-class inter-instrument agreement and repeatability, the Datacolor 45G CT is the only portable 45/0 spectrophotometer that offers close tolerance (“CT”) control for both color and gloss. Ideal for supply chain applications such as automotive interior parts, retail hard goods and other applications in plastics, paint, and coil coatings where total appearance control is critical.

## Measure With Confidence

### Best-In-Class Inter-Instrument Agreement for Color Supply Chains

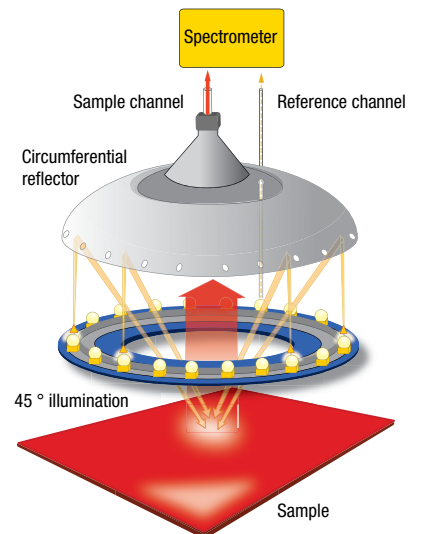
The Datacolor 45G CT delivers best-in-class color inter-instrument agreement by using the most accurate spectrometer in the industry – the same optical engine that is used in Datacolor’s reference grade bench top spectrophotometers. The spectrometer employs a dual 256 photo-diode array sensor coupled with holographic grating, which deliver 2-nm resolution. This means that you can reliably capture the true spectral fingerprint of any color at the highest possible accuracy. As a result, you can expect very close agreement among all the instruments in your supply chain.

### Excellent Repeatability, even on Textured Samples

The Datacolor 45G CT’s patented illuminator uses a diamond-turned reflector positioned over a circular array of full spectrum LEDs. This optical system provides highly efficient light mixing resulting in exceptionally uniform illumination without any shadowing effects. This means that you can achieve excellent repeatability, even on highly textured samples, and minimize the need for additional rotational measurements.

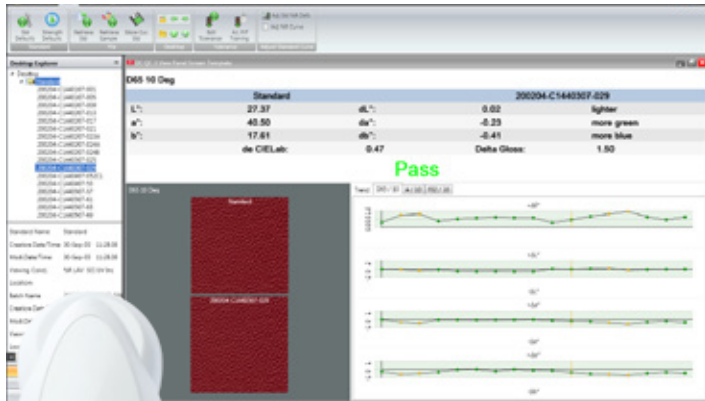
### Built-In 60° Glossmeter for Simultaneous Gloss Control

The Datacolor 45G CT measures color and 60 degree gloss at the same time and displays the results against your tolerances. This ensures that you can quickly detect an appearance mismatch in production.



*Datacolor 45G CT measurement principle*

# 45G CT CLOSE TOLERANCE CONTROL COLOR AND GLOSS IN ONE UNIT



## Everything You Need to Control Appearance

- Comes with the most complete standard accessory package and powerful Datacolor TOOLS quality control software for analysis and data management.
- All instruments can be serviced in the field or at one of our many service centers located worldwide.

| TECHNICAL SPECIFICATIONS         | DESCRIPTION   |
|----------------------------------|---|
| Measuring Geometry               | 45°/0°, viewing in conformance with CIE: 2004                   |
| Light Source                     | LED solid-state circumferential illumination                    |
| Spectral Range                   | 400 to 700nm  |
| Effective Bandwidth              | 10 nm   |
| Wavelength Resolution            | 2 nm  |
| Spectrometer Principle           | Master concave holographic grating                              |
| Detector                         | Proprietary Dual 256 element diode array                        |
| Color Repeatability              | < 0.01 ΔE*ab on white ceramic tile                              |
| Gloss Repeatability              | +/- 0.1 GU from 1-10; +/- 0.2 GU from 10-100                    |
| Color Inter-Instrument Agreement | 0.1 ΔE*ab avg of 12 BCRA tiles, 0.15 ΔE*ab max on any BCRA tile |
| Gloss Reproducibility            | ± 0.5 GU from 1-10, +/- 1 GU from 10-100                        |
| Aperture Size                    | 11 mm target window (8 mm measurement)                          |
| Battery                          | Rechargeable Li Ion > 2,000 measures/charge                     |
| Operating Environment            | 10° to 40°C up to 85% RH, non-condensing                        |
| Interface                        | USB, Bluetooth wireless   |

## Easy-to-Learn, Easy-to-Use

### Extensive Onboard Functionality - In Color

Large color LCD with an intuitive user interface makes the instrument easy-to-learn and easy-to-use.

- 1-click continuous sample measurement.
- Live Navigation bar enables easy access to Target, Batch, Tolerance, and other settings.
- Pass/Fail, Auto-Standard, Auto-Naming, Auto-Saving, Indices and more.

### Bluetooth and USB Peripheral Support allows Easy Measurement in the Lab or on the Shop Floor

- Connect to Datacolor TOOLS® quality control software with Bluetooth or USB.
  - Easy export of data to a USB flash-drive.
  - Support for USB keyboards and bar code scanners.
- ### Thoughtfully Designed for Optimal Use
- Sleek design with a low-profile probe for usage in hard to access locations, e.g. a car dashboard.
  - Measure buttons on either side allow for left and right handed usage.

| FEATURES COMPARISON                       | DATACOLOR 45G CT | DATACOLOR 45G | DATACOLOR 45S |
|---|------------------|---------------|---------------|
| Close Tolerance (Color and Gloss)         | ✓                | -             | -             |
| Built-in 60° Glossmeter                   | ✓                | ✓             | -             |
| Bluetooth Wireless                        | ✓                | ✓             | ✓             |
| Precision Calibration / Measurement Stand | ✓                | ✓             | ✓             |
| Rechargeable Li-Ion Battery               | ✓                | ✓             | ✓             |
| Datacolor TOOLS QC Software               | ✓                | ✓             | ✓             |

| FUNCTIONAL DATA  | DESCRIPTION  |
|------------------|--|
| Color Systems    | CIELab, CIElch, Lab (h), XYZ, Yxy                                      |
| Color Difference | ΔE*, ΔE (h), ΔE94, ΔECMC (2:1, 1:1, adjustable t:c), ΔE2000            |
| Gloss            | Absolute, Difference - (60° gloss)                                     |
| Indices          | Metamerism, CIE, Whiteness (CIE and E313), Yellowness (D1925 and E313) |
| Illuminants      | D50, D55, D65, D75, A, C, U3000, Horizon, F2, F7, F11                  |
| Data Storage     | > 2,000 standards w/ Tolerances, max 10,000 batches                    |
| Languages        | English, French, German, Portuguese, Simplified Chinese and Spanish    |

| PHYSICAL SPECIFICATIONS | DESCRIPTION   |
|-------------------------|---|
| Display                 | Color LCD Backlit (2.8", 240 x 320 pixels)  |
| Weight                  | 1.8 lbs (816 g)   |
| Comes Complete with     | Aluminum case, Spectrophotometer with certificate of instrument performance, Switching power supply, global connectors, USB cable, USB memory-stick with calibration data, User guide, Quick start guide, Black trap, White calibration tile, Precision Calibration Stand, Gloss calibration tile |
|                         | QC Software Datacolor TOOLS 2.0.6 or higher   |

For more information, please visit [www.datacolor.com/45GCT](http://www.datacolor.com/45GCT)

### STANDALONE SYSTEM REQUIREMENTS

System Requirements: Intel i3 processor or higher; 4 GB RAM; 500 GB HDD; 17" Monitor at 1280x720 resolution; 128 MB true graphics card; CD drive; USB/Serial Port; Windows 7, Windows 8 and Windows Server 2008