

Datacolor / Audi Use of Portable 45G CT Spectrophotometer



Available since January 2014, the Datacolor 45G CT is a highly precise, portable spectrophotometer with integrated gloss measurement. The spectrophotometer enables accurate color measurement of painted surfaces, plastic parts, packaging labels, automotive parts, furnishings and other manufactured goods. Measurements check the visual impression of the color, gloss level and effect of the surface texture.



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For automotive interiors, where individual parts are often manufactured with different surfaces by different suppliers, the overall visual effect should still be harmonious. The portable spectrophotometer enables the quality control of numerous components with stringent tolerance values to ensure a consistent color appearance. It reliably detects minor differences in gloss or color.

For users like automobile manufacturer Audi, it is vital that visual deviations caused by tool wear in plastic injection molded parts are detected before they affect the production quality.

Audi sets very high standards for the instruments used to produce measurements. In this specific case, it needs to be a hand-held measuring device equipped with analysis software for evaluating the measurement results for weathering tests and objective measurement data. The device must be highly reliable both in laboratory conditions and in field operations.

To measure weathering, an environment is simulated and raw materials, components or products are checked using targeted weather exposure. It is used for quality assurance in terms of weather resistance and durability. The aim is to determine the most accurate life span of products exposed to weather influences. Weathering produces a series of damage symptoms, such as bleaching or chalking, that can be measured and analyzed, depending on the influencing factors and structure of the weathered system. Chalking becomes visible as color lightening caused by increased scattering of the pigment and filler particles. Bleaching also becomes apparent as color lightening.

At Audi, the automobiles are tested with

the spectrophotometer before and after weathering. The 45G CT must evaluate and display the differences before and after weathering in comparison with the visual impression. The 45G CT provides objective data for evaluation, graphical representations and lists (e.g. change after 5 hours, 10 hours) and trend graphs.

The portable 45G CT spectrophotometer promises excellent accuracy and inter-instrument agreement and can simultaneously measure gloss level and color for quality control. Innovative 45/0 measuring geometry ensures compatibility with visual color perception while its modern, ergonomic design with its color display clearly shows multiple pass/fail tolerances.

For paintings and coatings, such as coil coating, 45/0 measuring geometry is a standard applied globally.



The complete Datacolor 45G CT kit

DATACOLOR / AUDI USE OF PORTABLE 45G CT SPECTROPHOTOMETER

The main advantages of the Datacolor 45G CT versus Audi's previously used device, is the 45G CT's sleek design which enables measurements be taken in hard-to-reach places in vehicles and on individual components, as well as it utilizes the Datacolor TOOLS software and database.

Managing the measured data in the Datacolor TOOLS software helps to structure

the wide range of measured data.

The onboard software can save standards and samples, and provides a comprehensive display of all important colorimetric data with clear indications of pass/fail decisions. The portable spectrophotometer offers seamless integration in the Datacolor Tools software that comes as standard, synchronization of standard and sample results for generating

quality reports as well as a simple management of comprehensive data. The spectrophotometer sets the standard for portable spectrophotometers in terms of accuracy, speed, user friendliness and value for money.

For more information about the Datacolor 45G CT please visit our [website](#).

Audi quote

"With this product, Audi can precisely measure and control color and gloss in a single convenient operation," says Stefan Hauck, responsible for interior material development and outdoor weathering at Audi. "The design and measuring technologies guarantee consistent results even with measurements over longer periods."

About Datacolor

Datacolor, a global leader in color management solutions, provides software, instruments and services to assure accurate color of materials, products and images. The world's leading brands, manufacturers and creative professionals have used Datacolor's innovative solutions to consistently achieve the right color for more than 40 years. The company provides sales, service and support in over 65 countries throughout Europe, the Americas and Asia. Industries served include textile and apparel, paint and coatings, automotive, plastics, microscopy and photography. For more information visit <http://www.datacolor.com>.

About Audi

In 2014, the Audi Group delivered approximately 1,741,100 cars of the Audi brand to its customers. The company achieved revenue of €53.8 billion and an operating profit of €5.15 billion in 2014. Audi operates globally in more than 100 markets and has production facilities in Ingolstadt and Neckarsulm (Germany), Győr (Hungary), Brussels (Belgium), Bratislava (Slovakia), Martorell (Spain), Kaluga (Russia), Aurangabad (India), Changchun and Foshan (China) as well as Jakarta (Indonesia). The brand with the Four Rings will start producing cars in Curitiba (Brazil) this year and in San José Chiapa (Mexico) in 2016. Wholly owned subsidiaries of AUDI AG include quattro GmbH (Neckarsulm), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy) and sports motorcycle manufacturer Ducati Motor Holding S.p.A. (Bologna, Italy). The company currently employs approximately 80,000 people worldwide, thereof around 58,000 in Germany. Total investment of about €24 billion is planned from 2015 to 2019 – primarily in new products and sustainable technologies. Audi is committed to its corporate responsibility and has anchored the principle of sustainability for its products and processes in its strategy. The long-term goal is CO₂-neutral mobility.