



KONICA MINOLTA

# Colour Measurement Solutions for the Food Industry

Trusted by Over 70% of the Top 100 Global  
Food and Drink Companies\*



\* Source: Food Research: Global Food Markets 2012

Giving Shape to Ideas

# You Eat with Your Eyes

## Colour Measurement of Food is essential

Whether checking the ripeness of fruit and vegetables, the appetizing colour of a ready-made tomato sauce or the rich colour of chocolate, the impact of colour on what ends up in the consumer's basket is undeniable.

### Objective and repeatable measurement

Colour communicates freshness, flavour and quality. Compared to the variety of parameters which require accurate analytical monitoring in a food laboratory, colour represents the only immediately apparent quality indicator. It deserves the appropriate attention through objective and repeatable measurement of raw materials, production processes and the final product.

Supermarket shelves are dominated by processed food and customers expect consistency. Colour variance may be a result of natural characteristics, but consumers may suspect poor processing, a change of recipe or outdated products. Processed foods require accurate analysis and monitoring of colour change throughout production. Temperature change, time and processing can all impact upon colour appearance and stability, making accurate colour control essential.

In addition to ensuring consistency for products that are displayed in large numbers on supermarket shelves, colour measurement has proven useful in monitoring consumer preference surveys, for research and development and improvement of processing methods.



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### An end to subjective visual scales

In the agricultural industries, instruments and colormetrics are replacing grading scales based on visual assessment (e.g. meat classification, salmon colour, egg yolk colour). KONICA MINOLTA is a leading provider of colour management solutions to the food, ingredients and beverage industry, supplying instruments to suit applications, either in the field, in the laboratory or production.

### Accessories designed for repeatability and accuracy

KONICA MINOLTA instruments are supported by a range of accessories designed to assist users in obtaining repeatable measurements and reducing sample preparation time. Consistent sample presentation is often the key to accuracy, and using the correct accessories in a repeatable process can have a significant impact on colour data.



# The Standard in the Food Industry

## Chroma Meter CR-400 & CR-410

Since the introduction of the first Chroma-Meters they have become a “defacto standard”, especially in the food and ingredients industry. The CR-400 series continues this heritage through its unmatched simplicity of operation, portability, durability, reliability and application flexibility.

Dedicated accessories including glass cells, petri-dishes and sample holders are available to simplify and minimise preparation of samples. Using the correct accessories the CR-400 series can be used to measure solids, pastes, granules, powders and liquids.



The CR-400 has a  $\varnothing$  8 mm measuring aperture suiting homogenous samples or small areas.

The CR-410 has a  $\varnothing$  50 mm large measuring aperture to take a measurement of more varied or textured samples, such as powders, granules or ground materials.

The Chroma Meters can be configured to work stand-alone or connected to a PC with the optional quality control software.



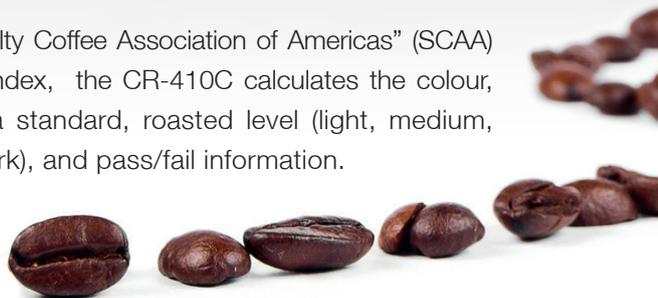
## Dedicated model for Coffee products

### CR-410C Coffee Colorimeter



The CR-410C coffee colorimeter measures the colour of coffee throughout processing: Whole green beans, roasted beans, and roasted ground coffee.

Using the “Specialty Coffee Association of Americas” (SCAA) specialty coffee index, the CR-410C calculates the colour, difference from a standard, roasted level (light, medium, medium dark, dark), and pass/fail information.



## Dedicated model for Tomato products

### CR-410T Tomato Colorimeter

The CR-410T handheld tomato colorimeter uses an index approved by the USDA to measure and grade the colour of processed tomato products. By simplifying colour readings to one number indicating quality and grade it allows users to check uniformity and consistency of colour from batch to batch.

The CR-410T can be used to measure the colour of various forms of tomatoes including sauce, paste, juice, and ketchup. This instrument is easy-to-use, affordable, hand-held, and can interface with the optional SpectraMagicNX Software, to edit and manage the collected data.

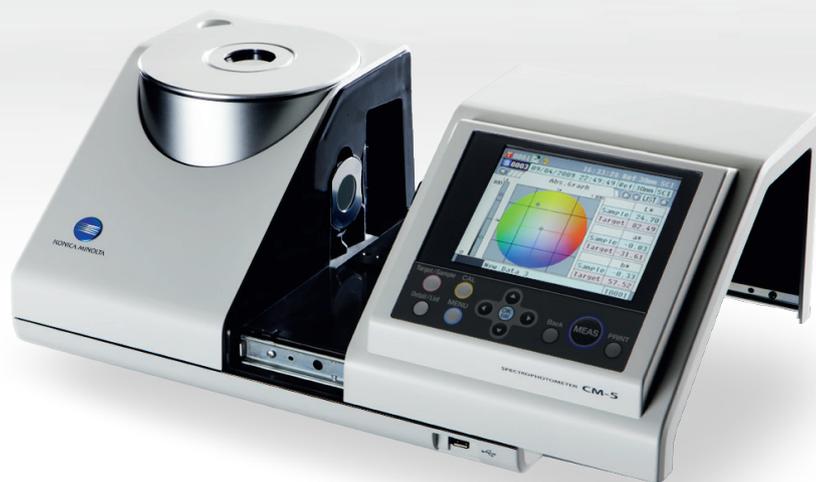


# Versatile and User Friendly

## CM-5 Top-Port Spectrophotometer

### A new benchmark in application flexibility and user friendliness

The CM-5 is the first of a new generation of colour measuring instruments for the laboratory with which users can expect to benefit from increased productivity and improved accuracy of colour measurement for almost any sample form. Developed based on the requirements of customers in the ingredients, food, and drink industry it has set new standards in terms of total application flexibility and design with unprecedented levels of user friendliness.



The top port alignment allows measurement in reflectance of solid samples directly over the measurement port, whilst powder, granular, paste or liquid samples can be measured through a petri-dish. This feature allows for quick sample changes where a large number of samples or routine measurements are required. The CM-5 also features a transmission chamber that fits cells with an optical path of between 2 and 60 mm to provide colour data on liquid samples with differing levels of transmission.

- On-screen user guides and a USB port that allows users to configure and store different user profiles.
- Operators can control all the functions of the instrument, and view results via the large colour screen.
- The instrument can connect with optional Quality Control Software to provide extended storage, reporting and analysis.



Reflectance Measurement on CM-5



Transmission Measurement on CM-5



# Simplicity for all kind of bakery products

## Baking Contrast Meter BC-10 PLUS

The Baking Contrast Meter BC-10 PLUS is a unique handheld colorimeter for simple measurement of the baking contrast in all kinds of bakery products including bread, buns, cookies, etc.

Very easy to use, the compact BC-10 PLUS delivers a single baking contrast unit (BCU) or classic L\*a\*b\* colour values to help the user control the baking process in the production line.



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