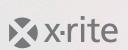Cie L*70.33 a*36.11 b*70.14

A Fresh Approach To Balancing Color

Solutions for food color analysis and verification

x·rite

PANTONE®

Keeping Up Appearances

Color is a difference maker. Whether establishing a corporate identity, a brand, a new product, color illuminates, engages, and creates a memorable first impression that distinguishes your image or product from everyone else's. It is, for many, the defining element of your product and corporate personality.

Ensuring consistent color accuracy is one of the single most critical factors in maintaining market share. X-Rite is a global leader in quantitative color measurement and visual analysis. We pioneer innovative solutions that are scalable from a single location to a global, multi-facility enterprise. The results are improvements in productivity, time-to-market, and profitability.

X-Rite's product portfolio offers solutions that evaluate color accurately from incoming shipment to processing. X-Rite color communication tools contribute to: cost savings through reduced product waste, minimal production downtime, elimination of off-color product, seamless management of the color process through a global supply chain or multiple locations, and increased customer goodwill and satisfaction.

We pioneer innovative solutions that are scalable from a single location to a global, multi-facility enterprise.

Enjoy the Sweet Taste Of Success

Food is all about color. Think about how much time is spent on food photography. On food packaging. On food presentation. Think about how consumers view the foods they consume. Research studies show that a rich, vibrant color is an indicator of quality, of freshness, of taste. A brighter orange suggests better tasting orange juice. A brighter red indicates fresher tomatoes. Processed foods, dependent on image and brand loyalty, must maintain a consistent look and appearance every time. Easy enough said, but getting the color right consistently is a demanding task. Consider these key issues:

Multiple source uniformity: Raw food products may come from different locations, or from different suppliers, before becoming part of a supply chain. A precise color program ensures consistency and avoids costly mistakes.

Supplier consistency: Whether using a variety of vendors or a single source for raw foods, it is imperative that color is uniform. Colorimetric measurement provides the needed consistency to evaluate shipments and ensure color harmony.

Product evaluation: There are standards for every food product, and they can be measured with a reliable color system that meets regulatory requirements. The ability to consistently measure ripeness, degradation and decomposition contributes to gains in overall quality and efficiency.

Process control: How are food products handled? Stored? Packaged? Shipped? Each process involves factors that can influence product quality. Precise color analysis tools ensure that colors remain consistent regardless of application.

Color harmony: Are preservatives or other ingredients being added to raw product? What impact might these have on its appearance? Repeatable color measurement and precise process QA are critical to producing consistent, and consistently appealing, products. From cookies and cakes, to canned fruits and vegetables, consistent color is essential to product appeal.

Product development: Whether measuring for standard color or using natural or indirect color additives, a color evaluation system provides the needed control to streamline development and reduce time to market.

**Tools for Monitoring Color
at Every Step**

The food industry continues to exert pressure on processors to provide more product options, to accelerate process time, and to cut costs. For processors, this added stress requires solutions that improve flexibility without sacrificing quality control.

Color measurement technology provides just such a solution — a practical, common sense approach to increasing overall efficiency. Consider just these few advantages:

- Eliminate common visual errors caused by inadequate lighting or random visual inspection
- Integrate consistent, precise color quality control into your operation
- Reduce waste
- Achieve color harmony among locations and suppliers
- Reduce process time
- Improve quality analysis and overall control

Integrate consistent, precise color quality control into your operation

X-Rite provides a selection of tools to meet a range of process requirements.

Benchtop Instruments – Primarily used in a central lab for validation of incoming products. They are also often used where special requirements exist, such as the need to measure color on uneven surfaces or shapes.
Solutions: Color i7, Color i5

Non-Contact Solutions — Convenient measurement option for lab use, such as evaluating raw material or product samples.
Solution: VS450

Non-Contact In-Line Solutions — Used directly in-line, ranging from economical color verification systems to precise laboratory grade spectrophotometers and multi-angle devices to ensure color quality.
Solution: VeriColor, VeriColor Solo, VeriColor Spectro

Visual Products – Color standards ensure product consistency and quality. A reliable color measurement system provides critical benchmarks that enable your entire supply chain to monitor product color for maximum reliability and effectiveness. Lighting options create a precise, evenly balanced system that eliminates guesswork and streamlines the approval process to ensure color harmony throughout a supply chain.
Solutions: Munsell Color Order System, Macbeth SPL III, Macbeth Judge II

Software Solutions – Instrument functionality is enhanced by adding formulation, quality control, profiling functions, color matching, or color management packages. Web-based editions are also available for server-based environments requiring simultaneous data viewing and communication around the globe.
Solutions: X-Color QC, Color iQC, X-RiteColor® Master

Color i7 Benchtop Spectrophotometer

A next-generation reference instrument that facilitates precise digital color analysis over a wide variety of levels, including coated and liquid samples. An on-board system monitors instrument performance and can calibrate and certify without need for additional service.

Color i5 Benchtop Spectrophotometer

A rugged design for accurate, high-volume production measurement. The i5 is ideal for evaluating an extensive range of sample sizes, shapes, and textures. Self-diagnostic and auto-configure functions ensure consistent performance.

VeriColor Spectro

Improve quality control and reduce operating expense with this cost-efficient, in-line non-contact color measurement solution that provides absolute spectral and colorimetric data for process control. VeriColor Spectro is compact and durable, and because it rejects ambient light, no special lighting or shrouding is required. Easy to set up and manage, the Spectro system enables color control in real time to contain color problems without disrupting production.

VS450

A 45°/0° non-contact benchtop spectrophotometer designed for color and gloss measurement on wet and dry samples. Ideal for sample analysis, the dual measurement of 6mm and 12mm allow for pinpoint color measurement of smaller and/or thinner products, such as celery or carrots. The VS450 features an integrated gloss sensor for relative gloss measurements. An optional stand is available for raising or lowering the unit when taking measurements of different sized items.

X-Color QC

Organizes and controls color data for all types of surfaces, coatings, and finishes in a single, flexible platform. This new generation technology gives you the freedom to efficiently control color quality while reducing the margin for error. No need for separate systems. No need to try and patch different programs together. No need to continually reset instruments and product color palettes for each user. X-Color QC lets you take control, including security and data access in one, convenient program.

Color iQC

By adapting to your workflow to make controlling color fast and easy, Color iQC is a job-oriented software solution that removes the guesswork from evaluating colors. It's easily adaptable and is available in a variety of configurations to meet specific industry and quality control requirements.

X-RiteColor® Master

Reduces downtime and eliminates color mistakes. This versatile software package provides immediate access to color control data in any type of manufacturing facility. Available in a choice of applications to meet specific industry and color communication requirements.

Munsell Color Order System

The industry standard for developing a clear, precise color specification program for a wide range of foods. Munsell Color allows you to specify, produce, and consistently match USDA color standards.

Macbeth SpectraLight® III (SPL III) Color Viewing Booth

The most accurate simulation of natural daylight available, this patented filtered tungsten halogen light source is available in single, dual, or multiple overhead luminaire configurations. The SPL III includes six light sources: Daylight, Horizon, Incandescent, Cool White Fluorescent, Ultraviolet, and choice of either U30, U35, or TL84.
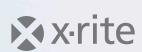
The Macbeth Judge® IIS Color Viewing Booth

A patented seven-phosphor design that provides the closest match to natural daylight available in a fluorescent source. The Judge II includes five light sources: Daylight, incandescent, Cool White Fluorescent, Ultraviolet, and choice of either U30, U35, or TL84.

Comprehensive Laboratory Service

For evaluating color performance and measurement standards and X-Rite maintains fully accredited laboratories throughout the world. Each is accredited in accordance with the recognized International Standard ISO / IEC 17025 and also meets additional program requirements in the field of calibration.

X·rite PANTONE®™

The Color of Success

The food industry presents both challenges and opportunities.
Color continues to play a significant role. X-Rite offers you the expertise
and technology to make the most of your color opportunities...right
from the start.

For more information, **visit xrite.com**.