



Cie L\*48.57 a\*75.62 b\*57.58

## Covering the World

Solutions for paint and coatings color management



## Color is a Difference Maker

Whether establishing a corporate identity, a brand, a new product, color has the power to illuminate and engage to create an attractive first impression that separates your image or product from everyone else's. It is, for many, the defining element of your product's personality.

Defining your color and ensuring its accuracy every time it appears is fundamental to long-term success. 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 which connect color accurately throughout the entire process, ultimately: reducing costs through product scrap, production downtime, off-color product shipments and rework; simplifying by managing the color process through a global supply chain or multiple locations, and; preventing corporate brand damage by bid list exclusions due to poor quality ratings.

*Defining your color and ensuring its accuracy every time it appears is fundamental to long-term success*



## The Right Color at the Right Time

Coatings protect, identify, and define nearly every aspect of our lives. Bridges. Furniture. Signs. Buildings. Cars. Aircraft. Everywhere we look we see coatings in use...and we see color at work. Color is essential component of the coatings industry, and getting it right is as important as getting the right color. There are a number of key issues to consider when communicating coating color.

**Design and development:** Whether designing a corporate image, a new protective system for municipal infrastructure, or signs for a city or village, color is a critical element of the development process. Colorimetric measurement provides the needed consistency from initial design, through prototyping, to finished product.

**Coating system consideration:** The extensive variety of coating types — from varnishes to hi-solids to powders — requires a measurement system that ensures color consistency in each application. Instruments and techniques that measure the same colors in these different formulations offer time- and process-saving solutions.

**Material consideration:** Just as coating formulations differ, so may the materials on which they're applied — wood, metals, plastic, and variations of each may be integrated in a design or product. Each has a different composition that may require a different coating system to achieve a color match. Accurate color standard and measurement tools are necessary to achieve these matches.

**Formulation harmony:** In-plant formulation technology requires non-contact batch analysis to ensure color integrity. Automated In-line color analysis systems ensure objective measurement and process continuity.

**Application methodology:** Aerosols, electrodeposition, UV cures — each requires a different chemistry. Color analysis tools ensure that colors remain consistent regardless of application.

**Multiple source uniformity:** Coatings may often be produced at different plants, or even by different suppliers, before becoming part of a supply chain. A precise color program — for manufacturers and applicators — avoids mismatched colors and costly mistakes.

*Color measurement technology is a common-sense approach to improving quality control*



Given the broad nature of the coatings industry, it is difficult to incorporate universal color standards into coating production and application. At the same time, industrial coatings are approaching \$10 billion in annual sales. This, given the increasingly competitive nature of the global market, would suggest that any time- and cost-efficient solutions would be welcome.

Color measurement technology is one such solution—a practical, common-sense approach to improving quality control, reducing waste, and increasing overall efficiency. Consider just these few advantages:

- Eliminate common visual errors caused by inadequate lighting or human estimate
- Integrate consistent, precise color quality control into your operation
- Reduce scrap and rework caused by mismatched colors
- Achieve color harmony among locations and suppliers
- Compile data for quality analysis and production review
- Reduce production time
- Improve quality analysis and overall control

### Tools for Monitoring Color at Every Step.

**Non-Contact In-Line Solutions.** Used directly in-line, ranging from economical color verification systems to robot-based multi-angle devices to ensure color quality.

**Solutions:** VeriColor Spectro, VeriColor System, VeriColor Solo, Color iScan, TeleFlash

**Portable Instruments.** Convenient, hand-held units that allow real-time color measurement anywhere in the process. This avoids the need to take samples — and waste material — as well as reduces waiting time.

**Solutions:** MA68II, SP64, SP62, SP60, 964, 962

**Benchtop Instruments.** Primarily used in the central lab for validation of incoming goods. They are also often used for research projects and where special requirements exist, such as the need to measure transparent products or confirm the whiteness control of UV-including materials.

**Solutions:** Color i7, Color i5, Color-Eye® 7000A

**Software Applications.** 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-RiteColor Master, Color iQC, Color iMatch, NetProfiler

**Visual Products.** X-Rite offers two daylight simulation technologies – SpectraLight filtered tungsten halogen technology for critical color decisions, and seven-phosphor fluorescent technology for relative color assessment. Both offer unparalleled precision, enabling your entire supply chain to deploy lighting products and complementary calibration services for maximum reliability and effectiveness.

**Solutions:** SpectraLight III, Judge IIS, Harmony Rooms, Munsell Color FM 100 Hue Test

### Non-Contact In-Line Solutions



#### VeriColor™ Spectro

The VeriColor Spectro is a cutting-edge, non-contact spectrophotometer that delivers in-line, non-contact, absolute (L\*a\*b\*) color measurement and identification.

#### VeriColor™ Color Verification and Identification System

Designed to meet the exacting color process control requirements of automotive parts suppliers, the VeriColor system merges the non-contact advantages of industrial grade color sensors with the precision of laboratory spectrophotometers. VeriColor is a complete system that features a programmable hub to interface with up to six sensors.

#### VeriColor™ Solo

VeriColor solo is a single “hubless” standalone industrial grade color sensor that allows color measurement in assembly and sorting operations.

#### Color iScan

A network-based system that allows multiple users to evaluate multiple in-line color anywhere within the network. Well suited to a variety of applications, particularly made-to-order goods.

#### TeleFlash Compact Non-Contact Spectrophotometer

Accurately measure color and evaluate color deviation through an exclusive instrument design that accommodates textured, finely patterned, glossy, dry, or wet samples.

### Portable Instruments



#### MA68II Multi-Angle Spectrophotometer

The ultimate portable, multi-angle instrument for accurate measurement of metallic, pearlescent, and special effect finishes. It's the accepted standard of the global automotive industry.

#### SP Series of Portable Sphere Spectrophotometer

The SP series offers a full line of spherical hand held spectrophotometers designed to meet the performance and feature capabilities necessary for diverse color measurement applications.

#### 900 Series of Portable 0/45 Spectrophotometer

A series of 0/45 handheld spectrophotometers designed to address a wide range of industry specific color needs, ensuring consistent color quality in the plant, laboratory or field.

### Benchtop Instruments



#### Color i7 Benchtop Spectrophotometer

A full-featured reference instrument for reliable digital workflow and error-free measurement of textile, plastic, coated, liquid, and brightened samples. An embedded NetProfiler system combines with self-diagnostic, and auto-configure functions ensuring consistent, precise performance.

#### Color i5 Benchtop Spectrophotometer

A flexible instrument for accurate, high-volume production measurement of a wide variety of samples sizes, shapes, textures, and opacity levels. An embedded NetProfiler system combines with self-diagnostic, and auto-configure functions ensures consistent, precise performance.

#### Color-Eye 7000A

A premium reference-grade spectrophotometer known for its superior inter-instrument agreement and reliability. Used by leading color suppliers worldwide, the ideal foundation for a color management system, especially for establishing digital color standards for supply chains.

## Software Applications



### **X-RiteColor® Master**

A versatile color formulation and quality assurance software package that provides immediate access to essential color control data throughout the manufacturing process. The package includes the ability to access, analyze, and report data from multiple angles of color information from various types of instruments.

### **Color iQC Color Quality Control Software**

A flexible, job-oriented software package that streamlines color measurement, reporting and recording to maintain a centralized, cost-efficient process. Whether approving lab dips, production samples, or finished goods, Color iQC adapts to workflow to make color fast and easy.

### **Color iMatch**

An acknowledged standard for formulating paints and coatings. Available in a choice of three versions to optimize formulas for cost and color accuracy and make best use of lab resources.

### **NetProfiler**

An exclusive advance in color measurement, NetProfiler enables customers to exchange spectral color data with confidence. By minimizing the variance between color measurement data — either from one instrument to the next or from one year to the next — NetProfiler controls the critical variable in managing the color reproduction process.

## Visual Products



### **SpectralLight® 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 Judge® IIS Color Viewing Booth**

A patented seven-phosphor design that provides the closest match to natural daylight available in a fluorescent source.

### **Harmony Rooms**

Sometimes referred to as fit and finish areas, these custom-designed viewing rooms simulate the consumer experience and allow for the evaluation of final product for color harmony between parts and components coming from multiple vendors.

### **Munsell Color FM 100 Hue Test**

The Farnsworth-Munsell 100 Hue Test from Munsell Color is the industry standard for determining color discrimination and identifying color deficiencies. This portable, 15-minute test and scoring software analyze how accurately your visual evaluators see color.

## 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.

In accordance with the A2LA evaluation process, accreditation is granted to laboratories to perform a wide range of units, including:

- Model 962, 964, 939 968, 948, 938
- Model SP61, SP62, SP64
- Model 504, 508, 518, 528, 530
- Model MA68 & MA68II
- Model Color i7, Color i5
- Optical Radiation for 2300 K and 2856 K lightboxes (SPL family)



## A World of Success

The industrial paint and coatings market 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.

For more information, visit [xrite.com](http://xrite.com).

### X-RITE WORLD HEADQUARTERS

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