Color Measurement for Building Materials

Laying the Foundation for 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, reduced time-to-market, and profitability. X-Rite’s product portfolio offers solutions that communicate color accurately throughout the entire process. Ultimately, accurate color measurement produces numerous immediate and long-term benefits — achieve new colors with greater speed, match colors faster than your competition to win bids, cost savings through reduced product scrap, minimal production downtime, elimination of off-color product shipments and rework, seamless management of the color process through a global supply chain or multiple locations, and the prevention of bid list exclusions because of poor quality ratings.

Color Control: The Building Blocks for Success

Defining color and consistently ensuring its accuracy is fundamental to product success.
As interior and architectural design trends expand to include intriguing new colors, building material manufacturers must revisit formulation methods and tighten quality control to ensure first run accuracy.

Whether you work with stucco, vinyl siding, laminate flooring, carpeting, ceramic tile, rooftop shingles, or glass, we offer the tools you need to:

- Measure the color and appearance of building materials with various surface conditions, opacity, and thicknesses.
- Identify when – and where – color is off track, so you can act before production is ruined.
- Formulate better matches in fewer steps with fewer corrections.
- Communicate color data across your entire supply chain.
- Achieve quality standards with less wasted time, materials, and effort.
Architecting Color Control

X-Rite’s innovative solutions ensure the color of interior and exterior building materials are right the first time, every time.

**Instrumentation**

- **Handheld Sphere Spectrophotometer**
  Provides measurement of a color with or without the impact of its surface effects.

- **Benchtop Sphere Spectrophotometer**
  Enables reflection and transmission measurement across opaque, transparent and translucent materials.

- **Benchtop Non-Contact Imaging Spectrophotometer**
  Measures multi-colored wet or dry coatings, powders, and sealants through its non-contact measurement capabilities.

- **Multi-Angle Spectrophotometer**
  Captures measurement of effect finishes to deliver complete characterization of color, sparkle, and coarseness.

- **In-Line Solutions**
  Monitors the product color during production to alert operators as soon as color moves out-of-spec.

**Software**

- **Formulation Software**
  Yields better matches in fewer steps and with fewer corrections through the industry’s smartest formulation engine.

- **Quality Control Software**
  Ensures consistent color throughout the supply chain with adaptable and configurable software options.

- **Instrument Performance Software**
  Verifies and optimizes the performance of color measurement devices to reduce variance among instruments.

**Visual Assessment**

- **Light Booth**
  Replicates almost any lighting environment and can be customized to fit the needs of every job and production process.

- **Visual Assessment Tools**
  Evaluates an individual’s ability to discern color through easy-to-administer tests.

- **Physical Color Standards**
  Visual reference standards and tolerancing guides to ensure the color chosen is the color at final assembly.
End-to-end solutions for a variety of building materials:

### Exterior Building Materials
Serves a crucial role in the structural foundation and aesthetic appearance of the external elements of commercial and residential buildings.

### Interior Design Materials
Applied within a structure to achieve an aesthetic environment that reflects cutting edge design elements and innovative color trends.

### Sealants & Coatings
Ensures that interior and exterior products are protected and attractive for a variety of caulk, adhesive, and powder-finish applications.
Exterior Building Materials

Build Visually-Appealing Structures

Architectural materials provide numerous benefits beyond durability, including impactful colors that are lasting and memorable. The aesthetic success of a building is the result of consistent, accurate color from reliable and easy-to-use color measurement solutions.

L*: 52.34    a*: 16.19    b*: 10.39

Formulation
- Achieve the tightest tolerances.
- Process color data to provide optimal initial color matches.
- Deliver accurate formulation of colorants to meet customer provided standards.

Quality Control
- Track-and-trace each measurement and colorant with a unique code.
- Deliver accurate color readings on powdered, liquid, transparent, textured, and opaque materials.
- Reproduce material accurately and consistently.

Visual QC
- Eliminate subjectivity in pass/fail decision-making.
- Standardize lighting and viewing conditions.
- Improve overall product quality.
Constructing Consistent Color
Control Color for Exterior Building Materials

**Powdered Raw Materials**
Create a limitless range of colors and textures for masonry applications like concrete, mortar and grout.

**Liquids**
Formulate and color-match a variety of environmentally-friendly paints and coatings to protect exterior surfaces.

**Transparent Surfaces**
Evaluate color quality, visual light transmission, and haze on glass and other transparent building materials.

**Textured Materials**
Assess and control the surface color and appearance of textured surfaces, such as roofing, stucco, and brick.

**Opaque Surfaces**
Deliver matching, on-trend colors for siding, composite decks, window frames, front doors, and garage doors.
Color significantly impacts the atmosphere and ambiance for interior designs. As trends expand to include intriguing new colors, precise color measurement tools can tighten quality control to ensure first run accuracy.

**Formulation**
- Deliver accurate formulation of colorants to meet customer-provided standards.
- Achieve the tightest tolerances.
- Process color data to provide optimal initial color matches.

**Quality Control**
- Evaluate and control metallic coatings.
- Provide actionable data to drive process improvement.
- Monitor color harmony real-time across the supply chain.

**Visual QC**
- Eliminate subjectivity in pass/fail decision making.
- Standardize lighting and viewing conditions.
- Improve overall product quality.
Interior and Exterior Building Materials

Sealants & Coatings

From hard-to-match grays to trending colors, coatings and sealants continue to evolve and can transform simple building finishes into visual masterpieces.

Quality Control
- Consistently measure against a standard and ensure a color quality audit trail.
- Versatility to measure powder, liquid and effects coatings.
- Achieve precise color measurements.

Visual QC
- Eliminate subjectivity in pass/fail decision-making.
- Standardize lighting and viewing conditions.
- Improve overall product quality.

Formulation
- Establish the strictest color standards.
- Process color data to provide optimal initial color matches.
- Set and digitally communicate global tolerances.

L*: 35   a*: -14  b*: -2
Why Partner With Us?

Minimize Risk & Protect Your Investment
To achieve the highest color accuracy, you must maintain your color investments. X-Rite offers Service Care Packages to ensure your device continues to operate in peak condition once it leaves our factory so you can deliver the color your customers specify.

Service Care Plan Options

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<th>Premium</th>
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<th>NetProfiler Plus</th>
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<td>Expedited Shipping</td>
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Invest in your most important asset – your people.
Our color training and services are customized to fit your needs, schedule, and budget. From introductory classes to advanced applications, our extensive library of courses spans every learning style to help you improve your color knowledge and ensure your workflow is the best it can be.

Training and Services Options

- Classroom
- Color Workflow Audit
- Custom Consultation
- Online
- Onsite
- Seminar
What our customers are saying....

“X-Rite solutions have made an unbelievable difference in our business. It used to take us two weeks to prepare a [paint] color. Now we can prepare five to six colors per day.”

— Marcel Janovsky
PRODUCTION DIRECTOR, AUSTIS A.S.
We’re color experts.

We recognize that great color portrays great quality and know that your success hinges on the consistent and accurate production of this color. With so many places for color to go wrong, it can be hard to know how to get it right. That’s where we can help. By blending the art and science of color, we help you achieve the highest level of color integrity so your product – and your customer’s product – comes out ahead.

End-To-End Solutions
We provide solutions that span the entire workflow, from design through production, to ensure your color is optimized.

Innovation
Bridging the gap between color and appearance, we are blazing the trail for you to take your color operations to the next level.

Experience
With 60+ years of experience in color manufacturing, our expertise spans a range of industries.

Passion
Inspired by the great color our customers produce, our X-Rite color team provides quality support and training services.