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The Importance of Color Quality Control

Why Do We Define Color?

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[Learn more on color perception](#)



10M colors

Even though the human eye can differentiate up to 10 million colors, how we perceive color varies, depending on the viewer, lighting conditions, material surfaces, and environment.



<20 names

Additionally, the English language has fewer than twenty definite color names, making precise communication about color nearly impossible. If your job depends on achieving the same color repeatedly, relying on human eyesight and color descriptions alone is not enough.



“Tangerine”



“Cherry red”

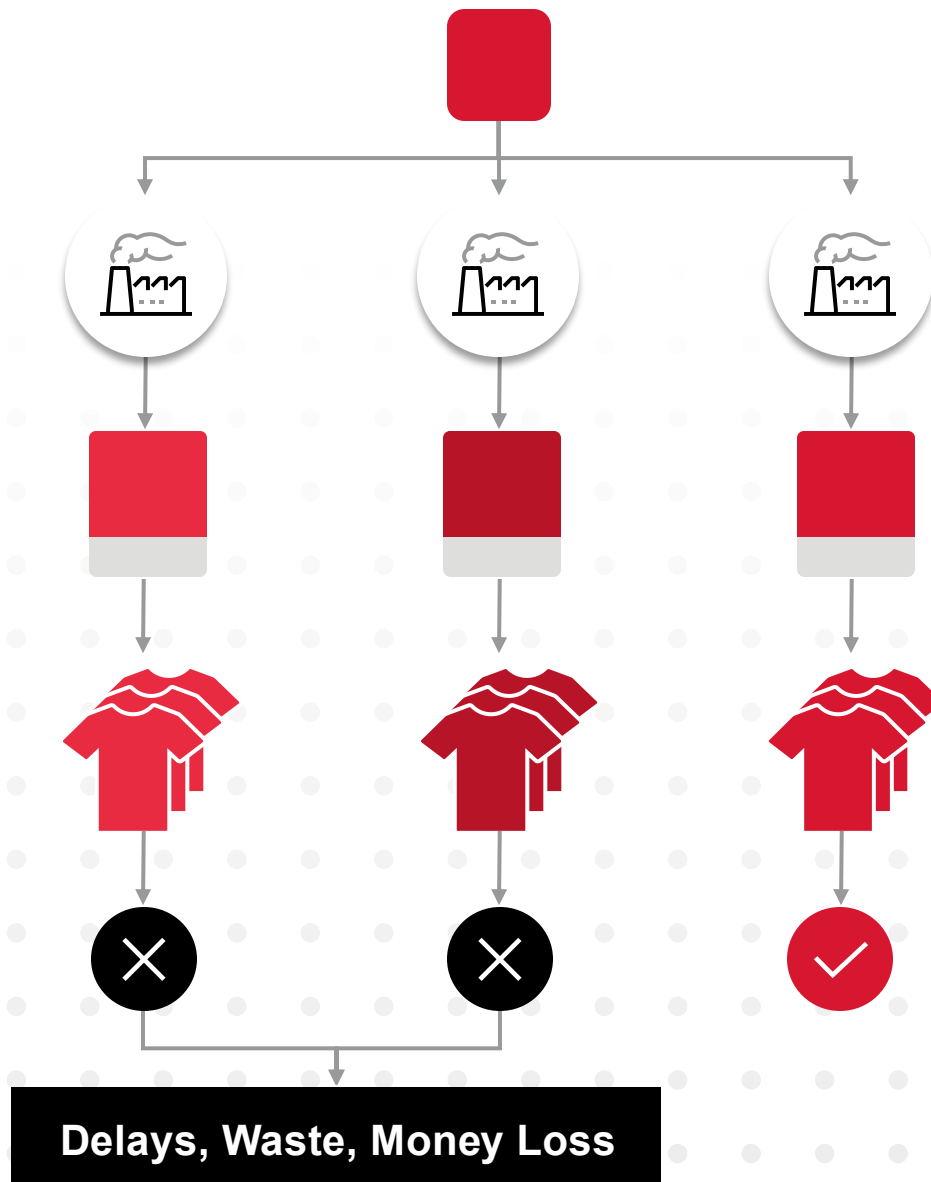


“Forest green”

The Impact of Getting Color Wrong

Across industries, color consistency isn't just a technical challenge – it's a business imperative. From consumer goods to industrial components, a color mismatch can delay production, damage brand trust and generate huge losses in terms of **time, money, and waste**.

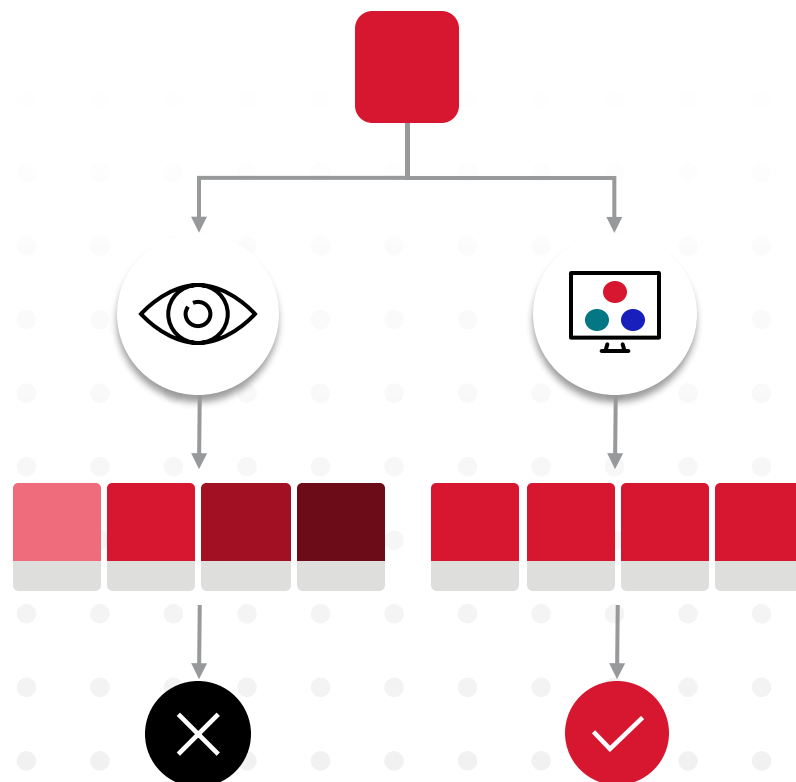
So how do you get color right, every time?



What Does Success Look Like?

Businesses are moving beyond subjective, visual color assessment to adopt digital tools or color quality control. Effective color quality control uses specialized tools, software, and techniques to objectively measure and manage color accuracy.

Just as important as measurement is the ability to communicate, store and access color data efficiently, across teams and locations.







Impact on Sustainability



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Color consistency errors have both economic and environmental repercussions. Customers across all industries are looking to support businesses that are reducing waste, minimizing carbon emissions and implementing sustainable practices.

A color quality control program not only supports product consistency but helps support your sustainability goals. By ensuring color consistency every time, you can reap the rewards of **reduced material waste, energy resources, and production time.**

Target	Actual	Status
		✗ DISPOSAL NEEDED

Target	Actual	Status
		✓ NO WASTE

Target	Actual	Status
		✗ DISPOSAL NEEDED

Effective Color Quality Control Programs

With a few key steps you can establish a strong digital color quality control program.

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[Learn more with our training courses](#)



Define Your Objectives and Requirements

Outline the goals, color standards and tolerances unique to your workflow.



Establish Standard Operating Procedures

Produce documentation for, and train personnel on, the procedures that detail every step of the process to produce your colored products.



Select Appropriate Tools and Technology

Choose the tools and software needed for color measurement and control, based on your industry needs and compatibility requirements.



Implement a Monitoring and Reporting System

Automate your monitoring and reporting, to maintain consistent color quality throughout production.



Conduct Regular Training, Audits and Improvements

Conduct regular audits and implement continuous improvements – to ensure long-term success.

Where Do We Fit In?

Datacolor offers a range of devices, software, and tools to help you manage color and ensure that colors meet your technical and aesthetic requirements.



Digital Color Quality Control Devices

Our Spectrophotometers are used to set standards for color, perform quality control checks of samples, and maintain consistency of product color quality over time.



Color Quality Control Software

Our software helps you develop, visualize, analyze, and communicate color accurately and objectively throughout a supply chain to eliminate guesswork.



Other Tools

While digital color quality control tools can help you get color right the first time, physical evaluation in a light booth is still important to make sure that the intended color visually matches the output.

Why Color Control Matters

In today's competitive landscape, having a trustworthy system to quality check color plays a critical role in brand consistency, product quality, and operational efficiency.

Visit our website to learn more about how Datacolor helps companies across textiles, paints, coatings, cosmetics, packaging, automotive, inks, and plastics, **to get color right.**

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Ready to Learn More?

Connect with us here 