

Why Color Control Matters for Automotives

In the automotive industry, details matter and quality is everything. A car is more than just a way to get around, it's often a status symbol or an extension of the driver's personality.

Among all the details that go into designing and manufacturing a car, one critical element always stands out: color.

Having consistent and harmonious colors can have a huge impact on the perceived quality of a vehicle. For the exterior, a consistent glossy finish is standard, but for the interior, which combines materials like plastics, leather, textiles, and coated metal, achieving color harmony can be very challenging. The different textures and gloss levels of these materials can make the same pigment combination appear mismatched when all the components are brought together and visually compared under different lighting conditions.

In addition, when you're working across so many different material suppliers, the opportunity for error increases exponentially. When color quality issues arise in a single supplier, a ripple effect that stalls production and increased costs can occur, which begs the question:

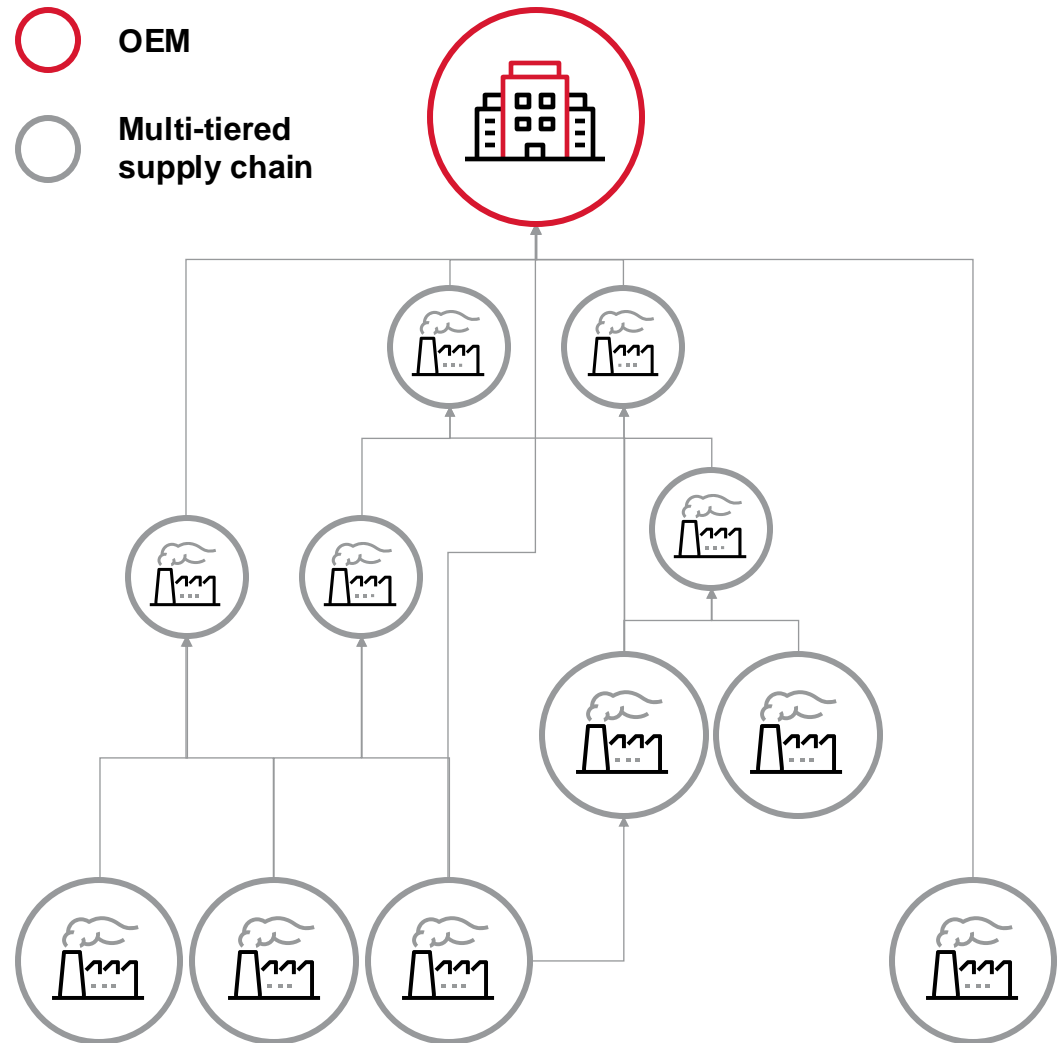
How do you get color right first time?

Under The Hood of Automotive Production

For automotive manufacturers, producing a consistent product means coordinating the production of many different parts and materials across a global supply chain network. A single car model may have as many as 1000 suppliers producing over 30,000 parts in fewer than 10 standardized colors, even using multiple suppliers for a single part in order to meet demand.

At the head of this supply chain network is the Original Equipment Manufacturer (OEM) that designs and assembles the vehicle. The OEM must coordinate production of individual components throughout a complex, dynamic, and multi-tiered supply chain.

This level of coordination makes producing colors to a set standard an enormous challenge.



Building An Effective Color Management Program



Achieve Consistency:

Greater control over your color data means a greater chance of getting color right the first time. By removing subjectivity from color assessments, OEMs and their suppliers can ensure the different elements produced will result in a harmonious end product.



Communicate Effectively:

By working digitally, you can reduce the need for physical samples and allows for quick decision-making no matter where in the world your team is based.



Shorten Time to Market:

With so many elements of production to coordinate, even a small error can have a domino effect that delays production. Fast communication, first-shot color matches and quick quality control checks mean your product is delivered on time, every time.

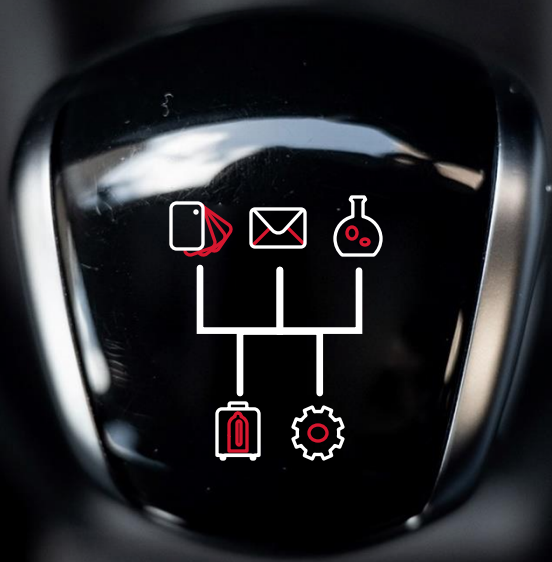


Formulate Precisely:

With the right color management program in place, suppliers to OEMs can build resilience to additive, dye stuffs, pigment and other ingredient shortages and pivot when changes to formulations are required due to evolving government regulation or customer need. Being able to easily and accurately formulate and reformulate color recipes will help you stay ahead of competitors and react quickly when necessary.

Where Do We Fit In?

datacolor



Datacolor offers state-of-the-art color management tools and software to help at each stage of the production process for automotive interiors.



Design

OEMs can speed up palette creation by accurately identifying interior colors across major color standard libraries. Spectrophotometers can be used to measure color standards and then specialized software helps you visualize the color data in the form of a reflectance curve.



Communicate

Datacolor software solutions can be used for multiple types of communication. 1) For color communication between OEMs and suppliers, or between supplier manufacturing facilities 2) For communication via custom integrations between color formulation or QC software and internal systems such as ERP, LMS, MES etc.



Formulate

Datacolor formulation software provides superior first-shot color matches and can optimize dye and resin recipes to match colors to the OEM's standards regardless of the material it is used on. In the event something get mis-tinted, our "recycle" feature allows you to reformulate and reuse that material, thus further reducing waste.



Coordinate

Datacolor helps you manage master data for production of new and existing products. It plays a key role in the manufacturing process and can integrate with third-party systems like ERP, MES, and LIMS to better manage on-hand resources, processes, and laboratory workflow.



Quality Control

For quality control checks on the production floor, Datacolor offers handheld color measurement devices for fast QC, ensuring the intended color matches your output.

Datacolor In Action

The automotive industry faces many unique challenges when it comes to color quality control. That is why companies around the world trust Datacolor's color measurement equipment, formulation software, and quality control tools to meet their needs.



Before working with Datacolor, **BMW** relied purely on visual evaluation of physical samples to assess their products. By switching to a primarily digital color management system, they reduced development times of master samples by 50%, while significantly improving quality in terms of color harmony across different surfaces. They were also able to drastically lower costs associated with color development.



For **Audi**, who assemble their car interiors using parts from many different suppliers, having a harmonious color story in their vehicles was essential to maintain their reputation. In order to achieve this, they use Datacolor's range of handheld color measuring devices equipped with analysis software that considers gloss as well as surface texture of the materials.



Audi

Driving Sustainability Forwards



Businesses across every sector are looking for ways to reduce waste, minimize carbon emissions and implement sustainable practices across supply chains.

By partnering with Datacolor and implementing an effective color management system, we can help companies achieve these sustainability goals. Digital color management enables a higher rate of first-shot color matches, thereby reducing consumption in terms of resources, materials, energy, water, and time.

Why Color Control Matters

Datacolor has color matching solutions for all aspects of automotive interiors. Our technology grants you greater control over the finished product, optimized use of ingredients, and easy communication across your supply chain.

Visit our website to learn more about how Datacolor helps companies in the automotive industry get color right.

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Ready to Learn More?

Connect with us here 