



# Color Detection and Analysis

**The color of a material can be one of the first signs to indicate that a chemical change or degradation has occurred. Unlike physical changes, chemical changes are typically irreversible and changing the chemical's appearance and atomic bonds. Such changes are typically undesirable, as they can change the initial properties of the material. Although color does not always pinpoint a specific problem that could be occurring in a system, changes in color can provide an indication of the amount, as well as the type of potential degradation mechanisms occurring in the system.**

In addition to providing potential information on material degradation, color is typically one of the first things a customer will notice about a product. If a product is a different shade or color than what a customer was expecting, they may think the product is flawed or defective. In the case of items such as coatings, consumers want to make sure a new coating will match the initial coating system or, in the case of touch ups, the touch up coating will match the color of the field-worn coating. This is particularly important for products that will be in service and exposed to light and/or heat for months or years.

Powertech Labs now offers the color analysis of solids and liquids. The color detection and analysis service can be applied to dry, wet, soft, hard and textured surfaces. The color detection and analysis system used by Powertech is portable, lightweight and can provide a color breakdown into several different color schemes such as RGB, HEX, CMYK, XYZ and others.

Through this digitized color analysis system, the guesswork of manually ensuring color

consistency is removed, and replaced with an accurate, defined, and repeatable detection method. All surfaces scanned can be compared to a database of hundreds of thousands of commercial product colors. Additionally, colors of two different surfaces can be compared directly next to each other and a given a differential rating (with value of greater than 1 indicating that a difference can be observed by eye). Combined this analysis with various accelerated the weathering/aging services Powertech offers, material longevity and resilience can be assessed. This can save both time and costs through product development or when assessing alternative replacement materials or components.

Whether performing an color analysis on powders, fabrics, plastics, paints, coatings and everything in-between, the Powertech Color Detection and Analysis service takes out the guesswork of ensure a proper or providing an analytical methods to definitely show a color change has occurred.

## ABOUT POWERTECH LABS:

*Powertech Labs Inc. is one of the largest testing and research laboratories in North America, situated in beautiful British Columbia, Canada. Our 11-acre facility offers 15 different testing labs for a one-stop-shop approach to managing electrical utilities, and testing gas components, pressure vessels and systems.*

*Outside of the utilities industry, Powertech provides routine testing capabilities, product development, research and consulting services to support an array of industrial-type operations, electrical equipment manufacturers and automotive original equipment manufacturers.*

[www.powertechlabs.com](http://www.powertechlabs.com)



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