

HOW CLOSE CAN I EXPECT THE COLOR OF MY PAINT TO MATCH THE CHIP?

Color chip samples approximate actual dry paint color. The actual color will vary on the vehicle, gloss level, application technique, film thickness variances, substrate, and light source. Flex Bon Paints goal is to meet or exceed industry standards for color comparison of 2.0% Delta E reading.

“What in the world is a Delta E Reading?” - CIELAB Delta Testing is an industry-accepted method of measuring color on a multi-dimensional plane (see Delta E Graph on page 2). Utilizing a photo-spectrophotometer, the test begins by measuring the lightness of a color; how close it is to “white-white” (the total reflectance of light) or how close it is to “absolute black” (the total absence of reflectance). The lightness is measured on a scale of zero to one hundred percent. One hundred equates to white-white and zero equates to absolute black. A “light” color would scale somewhere above fifty percent, and a “dark” color would scale somewhere below fifty percent.

From the center of the light scale are two axes. One axis runs from green to red. This is known as the “a” axis. This axis is metered from zero to fifty percent as it approaches the total reflectance of red, and metered from zero to negative fifty percent as it approaches the total reflectance of green. Running perpendicular to the “a” axis is the “b” axis. The “b” axis is metered from zero to fifty percent as it approaches the total reflectance of yellow, and zero to negative fifty percent as it approaches the total reflectance of blue.

Rotating along these axes is a combination of the hue “h” scale and chroma “C” scale. The “h” scale refers to a mixture of the color four axis points; such as orange or purple. And the “C” scale which refers to the variation in lightness or clarity of the color described as whiter, grayer, or darker. Like the “a” and “b” axes, the scales are metered from zero to fifty percent (example – light orange) or zero to negative fifty percent (example – dark orange).

The Delta “E” rating is the total difference involved when factoring in the points of lightness, “a” and “b” axis, hue, and chroma. The paint coatings industry uses this measuring process as one standard of measuring color-matching comparisons. Most people cannot visually discriminate the difference in color smaller than a Delta E rating of 1.5%. Due to the range of architectural products manufactured and utilizing the same color palette, the architectural paint industry uses 2.0% Delta E reading as an acceptable minimum standard. Flex Bon strives to exceed the architectural paint industry by setting internal standard parameters of .5%Delta E reading or less to measure batch to batch color control. Periodic spot-checks of random colors from the Flex Bon ColorSource selection are performed with a goal of 1.25% Delta E minimum reading. This color palette comparison range is a bit broader than Flex Bon manufacturing parameters due to variables from external sources, such as tinting colorant, tinting machinery, and color swatch reproductions, but note that Flex Bon performance parameters at the point of sale continue to exceed industry standards.