

TECHNICAL GUIDE

APPLIED COLOUR MANAGEMENT

FREQUENTLY ASKED QUESTIONS
TIPS & TRICKS FOR MEASURING COLOURS

Second Edition

FREQUENTLY ASKED QUESTIONS

1. Can I trust my colorimeter for all colour measurements?

A colorimeter measures and computes colours in a simplified way and cannot give you the actual spectral data. You should also use a densitometer and a spectrophotometer, some of which can compute densitometric data as well.

2. Why should I take multiple readings when measuring colours?

The more readings you take the better. Having multiple readings gives you a set of averaged values that will yield much better printed results.

3. Why does it matter if my backing isn't black?

The ISO 5-4 standard specifies the requirement for optimised measurements using a black backing, which is a density of 1.5 +/- 0.2. The reason to use a black background is to minimise the effect of any reflected light from the backing material, and/or from what is printed on the back of the sheet.

4. Is there an acceptable level of Delta E for colour differences?

This depends on the type of work you are producing, but in most cases a goal of an average of Delta E 4 throughout the print run is a reasonable target.

5. How can I be sure that my viewing booth is bright enough?

Check the frequency with which lamps need to be replaced, which will be in your support documents for the viewing booth.

6. Do I need a special measuring device for nonpaper substrates?

Most substrates behave like paper in terms of colour measurements. For those that do not, such as glass or metal, you need a spectrophotometer that uses sphere geometry. Such devices take colour measurements from multiple points to take into account the reflective transmissions of the substrate and/or the ink.

7. What is the difference between a densitometer and a spectrophotometer?

A densitometer doesn't measure colours, but rather the absence of reflected light. It measures density, so you can have different colours with the same density. A spectrophotometer measures the wavelengths of colours in small increments, to create a spectral curve for each colour

8. How often should I get my spectrophotometer recalibrated?

This will depend on the make, model and how much work it gets. Best to follow the manufacturer's instructions and to regularly test the accuracy of the device's measurements.

9. Does it matter if we don't calibrate our monitors frequently?

How often you recalibrate devices in the workflow depends on how much use they get. But in a professional environment it is likely that use will be heavy, so it is imperative to recalculate on a regular basis so that you can be sure that your colour measurements are trustworthy. Once per month should be considered a minimum.

10. What do I do about client monitors, for instance those of customers ordering over the web?

You have no control over those remote monitors, so you can have no idea of how well they present colours. This means that your customers might be expecting very different results compared to what you deliver. Explain the basics to them and provide guidelines for users viewing colour and ordering print. Some few proofing systems on the market offer an indication of whether the monitor has been calibrated or not.

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