The price of dyes and chemicals is rising – bringing with it worry and uncertainty for the textile industry. One solution is to move to digital color measurement technology – which can help counteract the cost –
as Todd Lee, product manager at Datacolor, explains.

COUNTERACTING RISING COSTS

Many manufacturers are looking for more efficient and environmentally friendly dyes to reduce the cost of manufacturing and maintain their sustainable practices. However, when manufacturers must go through three or more rounds of dye formulation simply to get a single lab dip approval, they effectively negate these efforts.

The solution lies in the transition to a digital formulation and approval process for these expensive and time-consuming lab dips. This reduces the overall number of dips – and subsequently the amount of dye – needed to achieve the right color. And we know that it works. A number of manufacturers already use digital measurement of textile dyes as an integral part of their strategy to combat high dye costs and better maintain their sustainability goals while still achieving accurate dye colors.

Overcoming and accepting industry reservations about digital measurement

As the textile industry begins to embrace new technology throughout the supply and production chain, we might one day find ourselves wondering how we ever measured and managed textile colors without it.

This movement toward integrated digital color measurement presents a challenge for brands, especially those in apparel sourcing and supply chain roles who are looking to source cost-effective, high-quality textiles that meet their sustainability standards. Across the industry, there is an underlying resistance to adopting a fully digitised color measurement and management process for textiles.

This will never change completely. Nor should it. There is intrinsic value in holding that physical sample and seeing it with your own eyes. Still, there is an argument to be made that the overall process could benefit from reducing the iterations of physical samples.

Say, for example, that it takes your brand three rounds to get a lab dip approval with your supplier – a fairly standard number of repetitions for this process. Each time the mill goes through the process to produce another dip, there is wasted time, money and energy, which adds up quickly. What if two out of three of those rounds could have been digitally measured? What would that mean for your brand?

Ultimately, this requires trust that a digital file is going to deliver the exact color you want. If you can't see it with your own eyes, if you can't hold it, how will you truly know the color will be accurate? Additionally, without regular shipments of physical samples, there

needs to be confidence that the color approval process is continuing to move along smoothly, without those regular assurances arriving in the mail in the form of physical samples.

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Thankfully, with today's digital color measurement and management solutions, these concerns can be effectively eliminated. Achieving highly accurate, repeatable color measurements can be fully realised with today's technology and software solutions. They provide the ability to review and formulate colors digitally, then send QTX files electronically to communicate these colors and formulas across the supply chain for exact replication at the mill.

> ## " Each time the mill goes through the process to produce another dip, there is wasted time, money and energy. "

When this technology is adopted throughout the entirety of the supply chain, brands can achieve perfectly replicated color across every one of their suppliers, mills and vendors.

Furthermore, digital measurement of textile dyes can significantly reduce, if not fully eliminate, the need for multiple rounds of dye formulations to achieve the correct color. When embracing these solutions, brands need not worry whether dye colors will match the desired color specifications. In fact, they can guarantee it.

Tapping into the full potential of digital color measurement

Additionally, this process can help save on the cost of labour, energy and fabrication, as well as shipping costs to send all those physical lab dips over for review.

It takes an exceptional amount of energy, especially water, to create a fabric sample. So, when lab dips are replicated ad infinitum across the supply chain, there is an enormous volume of waste. Rejecting digital color samples or sourcing materials from suppliers that don't have fully integrated color management systems can take a direct hit to your bottom line and negatively impact your brand's sustainability initiatives.

For many looking at the overarching issues within the textile industry, it's easy to assume that these software solutions are not the best way to maintain sustainability. But for brands that have committed to environmentally-conscious practices as a key component of their core mission, it's especially important to consider where sustainability efforts are falling short in the color formulation and approval process.

If the textile industry can embrace this technology ubiquitously, there's boundless potential. But before something is fully embraced and integrated, it's hard to imagine how influential it will become. The same could be said of smartphones, personal computers or other forms of technology without which today's society and businesses couldn't function.

As the textile industry begins to embrace new technology throughout the supply and production chain, we might one day find ourselves wondering how we ever measured and managed textile colors without it.

As efforts are made to reduce the high levels of uncertainty plaguing the textile industry, and compensate for rapidly rising raw material and dye costs, brands and manufacturers will need to turn to new and innovative solutions to production. In order to be fully successful, part of that equation will need to include digital color measurement and management systems.

About the author:

Todd Lee is a product manager for Datacolor, and has more than 20 years of experience in the textile and color industry, including with some of the biggest names in the retail world.

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