Twenty years ago it was unusual if a customer rejected a job due to color discrepancies. “Everything was done visually and we hardly ever sent proofs to customers for approval,” said Scott Miller, National Sales and Technical Director of BCM Inks. Today, however, is another story. Miller, who has close to 27 years of experience in the corrugated industry, was a speaker at the TAPPI CorrExpo conference in Indianapolis last fall. His presentation focused on printing and the delivery of color. “I often get asked, ‘What’s the big deal about color? Color isn’t going to steer me away from buying a product’.” Miller pointed out that this is a common misconception because over time color plays an important role in consumer buying habits. “Research reveals that people make a subconscious judgment about a product within 90 seconds of initial viewing and between 62% and 90% of that assessment is based on color alone,” he said. One recent study places color at the top of the communication hierarchy, followed by shapes, symbols and

**Using the Wrong Color Standard Can Result in Printing Discrepancies, Reflecting Poorly on the Corrugated Converter and the Customer. By Jackie Schultz**

Delivering Color Accurately and Consistently
then words. According to a University of Loyola study, color increases brand recognition by up to 80%.

Advertising campaigns that feature well-executed packaging graphics help create brand awareness and brand integrity. “The ultimate goal is brand loyalty. That’s when color is important,” Miller said. “Over time, the consistent message has to be seen by the consumer. Accurate and consistent color plays a major role in the success of a brand.” Miller presented a few examples, beginning with Coke red. Coca-Cola was one of the original companies that emphasized the importance of color consistency on a global basis. Other successful brand colors include Tide orange and Crown Royal purple. “Consumers associate these products by their brand colors,” he said.

The pressure on corrugated converters for accurate color reproduction has never been greater. “Running color to a very tight tolerance has been around for a long time, but it’s relatively new to the corrugated industry,” Miller said, adding that it isn’t difficult. “It’s just new and people need to be educated.”

The Problem With Standards

When a brand color is printed incorrectly or a particular product on the store shelf has multiple shades of its brand color, consumers will question the integrity of the company and the quality of the product. The biggest opportunity for errors centers around what printers are using as their standard.

Miller presented a photo of several stacked boxes, each with a different shade of the brand color. Multiple printers produced the boxes, and each used a different standard. When Miller checked with each printer to find out what they had to print by he said they actually did a pretty good job. “The problem was not the printer, it was the standard provided. The print buyer was supplying unqualified print samples to be used as the standard for the brand color. This method had been used for years and over time the brand color had shifted from the initial intent.”

With drawdowns, visual comparing can lead to problems. “I’m never going to tell you to completely take your eyes out of the game because it’s important that you use your eyes when you’re printing and viewing color, but you have to be very careful that whatever is being used as the standard is correct,” he said. Drawdowns can fade over time, leading to inconsistent color.

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Using the light, standard, dark method as your only printing standard is too subjective and will lead to poor color decisions.
on repeat orders. In addition, the drawdown can get lost or misplaced and confusion and downtime will be the result. The drawdown can get dirty from handling in the production setting. This can also lead to printing the wrong color.

Measuring the drawdown can also lead to problems. “I see printers measuring the drawdown and setting the standard every single time they run the job. They don’t save anything electronically,” he said. As an example, he referenced the electronic standard of Pantone 185C. He then referred to three different guides. Even though all three guides were brand new and within spec he got a difference of DEcmc 1.03, 1.17 and 1.46. “So if you’re using guide book No. 3, you’re off a DEcmc of 1.46 before you even get started,” he said.

A Better Approach

Delivering color correctly offers obvious advantages. The color will be printed more consistently, and there will be less waste and confusion, fewer rejections from customers, more up time on press, and ultimately will result in a satisfied customer. “I have very seldom seen a color being printed incorrectly on purpose. Most of the time everybody has great intentions, but they don’t have the correct information in front of them,” Miller said.

Describing a color accurately is the biggest key to printing it correctly, but it is not easy. When people are asked to compare a color that isn’t the correct target color they will use terms like “too dirty, too dark, not warm enough, needs to be brighter, too red or too green.” Miller said a better approach is to describe color numerically using an Lab/LCh value. The value will not change or shift over time like a sample or drawdown can. The value represents one defined color and there is no room for subjective color decisions. This allows converters to communicate with their customers accurately.

He also suggested giving the color a custom name. “This is probably the easiest thing to do in all of your printing facilities and it’s very seldom done.” He recommends not using the Pantone number in the name because printers will automatically refer to the guide. “Don’t give any chance for an incorrect color decision to be made.”

In addition, Miller said corrugated printers should use spectrodensitometers to read, monitor and qualify color. Transferring color data electronically eliminates confusion and the opportunity to plug in a wrong number. Colorimetric data can be transferred electronically using .MIF or CxF files. “Everyone has the same file and everyone talks the same language throughout the entire supply chain,” Miller said. Corrugated printers should use software to analyze, monitor, qualify and report color accurately and consistently.

And one final point — control outside influences. “Make sure you are receiving accurate and consistent ink from your ink supplier and monitor the pH and viscosity of the ink on press, change doctor blades routinely and keep your anilox rolls clean, substrates need to be consistent and train your press operators,” Miller said.