

From Research Through to Production, X-Rite Ensures Color Quality for EnerPlastics



The Situation

Over the past 15 years, EnerPlastics has become a leading independent manufacturer of color and additive Masterbatch. From its facility in Dubai, EnerPlastics distributes its Masterbatch to the plastics converting industry in more than 48 countries across Europe, Africa, CIS, and the Middle East including the Persian Gulf and the Indian subcontinent.

The company's expansive growth in a relatively short period of time is a testament to its commitment to providing customers with an excellent level of service and quality. To continue to fulfill this objective, the company needed a way to more accurately measure color at each stage of the research & development, pre-production and production processes, including efficient management of more than 20,000 colorant recipes.

"X-RITE SOLUTIONS SUPPORT OUR RESEARCH EFFORTS AND HELP US ACHIEVE FASTER PRODUCTION IN OUR MASTERBATCH PLASTIC MANUFACTURING OPERATION."

RASHAD HASNAIN, SENIOR RESEARCH EXECUTIVE, ENERPLASTICS

The Solution

Working with its dealer, Al shihab al Thahabi, a U.A.E. based company, EnerPlastics acquired two X-Rite Color i5 Benchtop Spectrophotometers. One is used to measure color quality throughout the Masterbatch production process, and the other spectrophotometer supports the company's research and development efforts.

Results

Using X-Rite spectrophotometers has delivered increased quality, consistency and accuracy in Masterbatch colors. EnerPlastics has also been able to speed up production. In addition to production applications, the instruments gave the company a way to ensure the accuracy of the tests conducted in its research and development operation.

A Commitment to Color

Color Masterbatch is a concentrated mixture of pigments that are added in increments to a carrier resin and encapsulated during a heat process. The resin is then cooled and cut into a granular shape. Masterbatch allows the processor to color raw polymer economically during the plastics manufacturing process.

Spectrophotometers Ensure Accuracy

X-Rite's Color i5 Benchtop Spectrophotometers were selected to help in color matching during the Masterbatch production process. Rashad Hasnain, Senior Research Executive at EnerPlastics, says, "Each person's eye sees color differently. The interpretation of color is highly subjective, and each individual interprets color based on personal references. So when we were adjusting the colors in our Masterbatch, we could not rely on a manual process to ensure correct color match. There is too much possibility for error in manual color matching. In addition, manually matching colors based on our thousands of different recipes could no longer be relied upon. To avoid costly mistakes and speed time to market, we needed to automate our color matching. That's why we choose X-Rite."

Master Chips for Standards Reference

Using its new X-Rite spectrophotometers, EnerPlastics also created a database of color master chips. This allows R&D and operations personnel to use the spectrophotometer to measure and compare the standard to production. In this way, color shifts can be detected before they are visible to the human eye, enabling operators to quickly make adjustments as necessary.