x-rite
PANTONE®

Capture Accurate Color Data on Cylindrical-Shaped Items

X-Rite's Cup and Cylinder Solution combines the eXact or Ci6x handheld spectrophotometer with a sample-positioning arm to hold a cylindrical-shaped sample at the correct height and angle for color measurement.

Challenge

Controlling color on cylindrical-shaped items like cups, cans, sleeves, bottles, and tubes is a challenge. Since measuring on a curve can introduce errors, many manufacturers cut a piece from the finished product and lay it flat for an accurate reading. While this method works, it is expensive and time consuming. Each sample takes time to cut, and the process must be repeated multiple times per hour on each press. It also adds unwanted safety risks to employees who are cutting the samples, and unnecessary waste for the environment.

Solution

X-Rite's Cup and Cylinder Solution is an integrated and easy-to-use fixture that combines the power of our eXact and Ci6x Families of handheld spectrophotometers with a sample-positioning arm. Simply slide the sample on the arm to position a cylindrical-shaped sample at the correct height and angle for an accurate measurement.

- Saves the time-consuming task of cutting samples and associated waste
- Minimizes the risk of injury to employees
- Captures actionable data to control color throughout the manufacturing run
- When used with the eXact Family, can measure a wide array of opaque materials, including plastic, foam, film, and paper.
- When used with the Ci6x Family, can measure textured, reflective, translucent, and transparent samples using ISO-compliant Munsell backing material.

Results

For one X-Rite customer who prints plastic cups, using X-Rite's Cup and Cylinder Fixture with the eXact has saved them 12 employee hours a day. To determine this savings, they calculated the time it took to cut a square from each cup and lay it flat to measure it, multiplied by the number of color checks per hour, per press. This tremendous cost savings is on top of the thousands of cups they save each day, and the positive impact on the environment since they package and sell each sample instead of destroying it.

How it Works

X-Rite's Cup and Cylinder Fixture holds the cylindrical sample horizontally and on the same plane as the device, in perfect measurement position. The arm can be customized with three offsets to accommodate samples -.025, -.045, or -.100 inches thick.

The device sits on the stand with the aperture aligned over the sample. The sample can be moved and turned to measure different locations. The top surface of the sample-positioning arm is flat, allowing flexible samples to flatten against the surface during measurement.

The arm of the fixture is covered with Munsell backing material for consistent measurements on transparent samples, and to keep background color from interfering when measuring samples that are not 100% opaque.

Achieve Color Success

With X-Rite's Cup and Cylinder Fixture and the eXact or Ci6x spectrophotometer, packaging printers and industrial manufacturers can easily measure cylinder shapes for a range of applications, reducing overall measurement time and eliminating waste. This combined solution also integrates with other X-Rite solutions, including InkFormulation software, ColorCert, NetProfiler, and Color iQC quality assurance software, to further streamline manufacturing workflows.