

Have you ever ventured up to that country north of the border? In Canada most of the food is the same as it is in the US, with Smarties being on exception. Americans associate that name with a sugary candy, whereas Canadians recognize it is as a candy coated chocolate, similar to M&M's. M&Ms are available in Canada as well, so how are they able to successfully co-exist with such a similar product?

Visual appeal means more than just pleasing to the eye. Aside from flavor, consumer choice depends greatly on visual acceptance.¹ While Smarties are similar in concept to M&M's their paler, more pastel like colors, appeal to a different customer base.

It isn't just the color itself that matters, but its intensity plays a key role in attracting a certain set of customers. That's why color consistency is integral for maintaining a loyal customer base. Advanced color measurement tools is the simplest way to streamline this process while avoiding costly errors and wasted resources.



M&M's are known for their distinct colors and brightness. Image Source: Flickr' user frankieleon

Spectrophotometers and Batch Certification

Spectrophotometers are the preferred tool used to monitor the consistency of color additives. This instrumentation uses reflectance spectrophotometry to make quantitative color measurements. Certain instruments come with software that will store color standards and automatically identify whether the measured values are acceptable. This helps guarantee [color repeatability and consistency](#) from batch to batch.



Color intensity plays a huge role in consumer loyalty. Image Source: Flickr' user klubbers

Sample Preparation and Advanced Applications of Spectral Technology

Sample preparation is one of the most important factors for maintaining color consistency. To promote success, samples should be made as ideal as possible before a color measurement sample analysis is taken².



Sample preparation and uniformity play an important role in accurate color measurement. Image Source: Flickr' user Barbara Samuel

When selecting a sample from a batch, it is important to randomly select and examine the sample to confirm that it meets the requirements mentioned above. These samples should represent the overall appearance of the material that is subject to certification. Any spoiled or damaged product could result in non-conformity and fail to meet the specifications required. Continual monitoring of product formulation and changes made will require advanced color measurement instrumentation. Repeated measurements are needed to create a color sample average and ensure that products meet the regulatory standard requirements.

[Advance spectrophotometers are designed to account for changes in appearance](#) and can be calibrated to reduce errors from surface texture changes as well as changes in absorption and reflectance values. Sample type plays a significant role in the instrumentation needed. Understanding your sample type and the geometric principles best suited for that sample type are important to know when selecting the right color measurement tools needed for certification.

The Right Choice in Instrumentation

HunterLab is a leader in spectrophotometry and color technology. In our 60+ years of experience in color measurement, we have worked with industry leaders to design and develop instrumentation that meets to specific needs of all sample types. Our customer service members work with you to help select the right instrumentation needed to provide the most accurate results. Whether seeking approval for color additives subject to batch certification or monitoring product formulation and manufacturing for quality control, HunterLab has a tool that is right for you. [Contact us today](#) to learn more about the many options available and see why more industry leaders choose HunterLab to meet all their color measurement needs.

1. "Flavour: On the Psychological Impact of Food Colour", April 22, 2015, <https://flavourjournal.biomedcentral.com/articles/10.1186/s13411-015-0031-3>
2. "Selecting Representative Samples for Color Measurement", December 31, 2015, <https://support.hunterlab.com/hc/en-us/articles/203992235-Selecting-Representative-Samples-for-Color-Measurement-an01-07>