



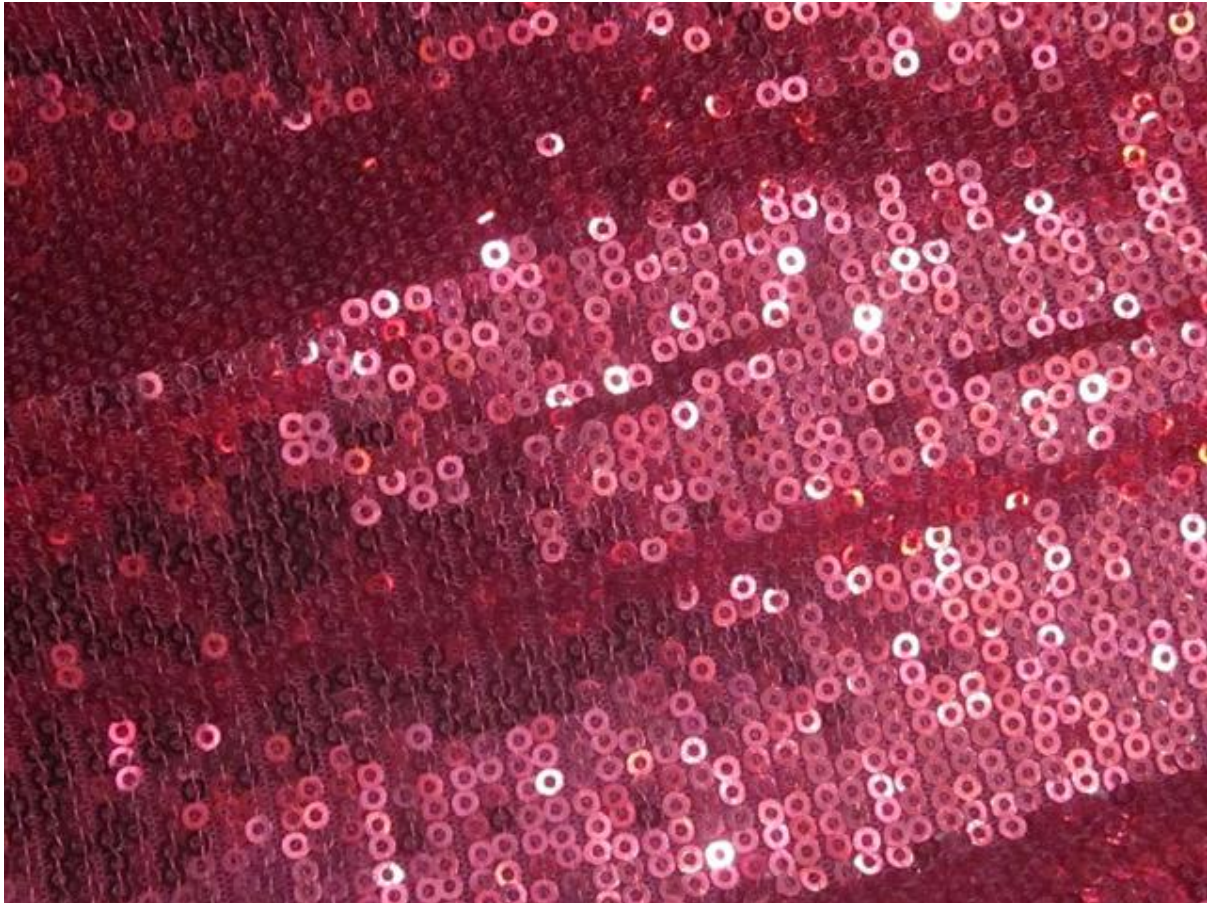
The best spectrophotometer for measuring glitter or sequins is an instrument that can accommodate glossy surfaces. Image Source: Unsplash user Mink Mingle

A fashion designer needs the perfect rose gold sequin fabric to create shiny, beautiful gowns for an upcoming runway show. To make his vision a reality, he wants the tiny sequins to be completely uniform in shape and color from one piece to the next, making it appear as though his models are wearing liquid gold. However, this isn't a simple task; any slight variation in the sequins' color or shine could stand out on the gowns, making them appear less than perfect. Imagine seeing a few random chunks of muddy brown sequins clashing against the bright, rosy gold pattern—the result is a gown that, from a distance, looks as though it has holes in it.

To prevent this problem, manufacturers of sequins and glitter must employ sophisticated color measurement technologies in their quality control processes. Measuring the color of glitter and sequins can be challenging because they are very reflective products. Modern spectrophotometric instruments, however, are capable of seeing through this sheen in order to detect the true color of the product and ensure that your products live up to your—and your customers'—expectations.

#### Why Color Consistency Matters

Glitter and sequins are used in a wide range of industries, from the tiny flakes of sparkle that you see in certain nail polishes, to the bright, reflective finish on an ice skater's costume. These shiny pieces of plastic and metal also have industrial applications, including uses in flooring, solvents, and boat finishes.<sup>1</sup> However, the quality of your products determines how many applications they will likely have in the real world. Because glitter and sequins are often applied in detailed, intricate patterns on products like fabrics, flooring, and even cosmetics, color consistency is vital. Without stringent color quality control, sequin and glitter manufacturers may produce sheets of product that vary in color, resulting in obvious aesthetic flaws in their end-use applications.



Brightly-colored sequins and glitter need to be consistent in color, especially if they're being used to make fabric for clothing. Image Source: Wikimedia user Sherrie Thai

#### Gloss Poses Challenges for Color Assessment

In order to find the best spectrophotometer for your products, keep in mind that the color of sequins and glitter can be challenging to accurately measure. Glitter and sequins get their shine from a coating of [metallic material](#). Most manufacturers start with a thin sheet of PVC film, PET film, or, occasionally, sheets that are coated with a thin layer of silver or aluminum. Regardless of which base a manufacturer uses for sequins and glitter, manufacturers create color patterns by sandwiching thin sheets of [colored plastic or acrylic](#) on top of the internal glossy layer. In some cases, the manufacturer may paint a translucent coat of ink over the sheet to create a solid color.<sup>2</sup>

This process gives glitter and sequins their signature gloss. Light penetrates through the thin, translucent color on top of the sequin or glitter, and then it hits the underlying metal or [reflective plastic](#) sandwiched in-between the colored coatings.<sup>3</sup> The light bounces against the reflective surface inside and reflects back at the viewer, resulting in a shiny finish.

While beautiful, the glossy surface of glitter and sequins present challenges for accurate color assessment. This is due to the fact that the shine can easily trick the eye into thinking that the color is lighter than it actually is. Take a look at an image of a sequin fabric, and you'll see that each individual piece appears to be a different color—sequins facing the light source head-on appear almost pure white, whereas those facing away from the light appear far darker. In order to obtain an accurate reading of a raw sheet of sequin or glitter product, you have to use a spectrophotometer capable of seeing through this glossy finish.



Because sequins are made with very reflective sheets of raw material, you should use color measurement instruments that can exclude this reflected light. Image Source: Pexels user suzukii xingfu

### The Best Spectrophotometers for Measuring Sequins and Glitter

To overcome the challenges of color assessments inherent to sequins and glitter, you need to use a spectrophotometer that is equipped to measure color in reflectance-specular included (RSIN) mode. RSIN mode allows you to [quantify true color irrespective of geometric attributes](#) like gloss that can interfere with color appearance. Diffuse/8° sphere spectrophotometers, or spherical instruments, are designed to support RSIN measurements to ensure accurate, consistent coloration. In contrast, directional 45°/0° spectrophotometers only allow for measurements in reflectance-specular excluded (RSEX) mode, which include the effects of geometric attributes. This means that they measure appearance rather than quantifying color in isolation.

It's important to note that spectrophotometric color measurement must be performed while your sequin or glitter product is still in the raw sheet stage. This is due to the fact that these instruments can more accurately measure color on solid-colored sample sheets rather than tiny, individual flecks of glitter or sequins. As such, you should always perform color quality control before you cut through your colored sheets. Once you've determined that the color on the sheet falls within your color standard, you can then focus on cutting your product into your desired shapes.

### HunterLab Innovation

Whether you're creating small pieces of glitter for cosmetics customers or need to craft large sequins for fabric manufacturers, you need a spectrophotometer capable of meeting the challenges presented by glossy materials. Every industry that uses glitter and sequins expects to receive a uniform product that will allow them to manufacture their own products to the highest standard. With more than 60 years of experience helping companies find the perfect color measurement tools

for their needs, HunterLab can offer you instruments and software packages that will make measuring your glitter and sequins a simple, streamlined process. [Contact us](#) to learn more about our innovative color measurement technologies and let us help you find the perfect tools for your needs.

1. "How Glitter Is Made", <https://www.glittermyworld.com/how-glitter-is-made.html>
2. "What Makes Glitter Sparkle?", <https://wonderopolis.org/wonder/what-makes-glitter-sparkle>
3. "Five Sparkling Facts About Glitter", August 16, 2016, <http://mentalfloss.com/article/84561/5-sparkling-facts-about-sequins>