



When you invest in the best spectrophotometer for measuring wig color, you can ensure that your synthetic wigs look nearly identical to real hair. Image source: Pexels user iiiiii

The synthetic wig business is booming. Every year, more customers buy synthetic wigs and hair extensions in order to test out new fashion trends or make their natural hair appear fuller and healthier. This nearly \$230 million market has grown by an average of 4 percent in value every year since 2011, and this trend is expected to continue.¹

However, when modern customers invest in today's synthetic wigs, they expect a much higher level of quality than previous generations of wig wearers. Today's customers want wigs that look identical to real hair, from the texture of the fibers to the layers of color in the dye. To create realistic, trendy, and fashion-forward synthetic wigs, you'll need to [invest in the best spectrophotometer](#) for measuring multidimensional color. This will allow you to perfectly mimic the look of real hair without paying premium prices for actual human hair pieces.

Why Many Manufacturers Choose Synthetic Wigs

The reason many manufacturers and customers choose synthetic hair, rather than real human hair, is largely due to price and availability. Real human hair takes years to grow, and wig manufacturers have to compensate the people who choose to grow their hair for use in wigs (unless they donate their hair). This means that real human hair wigs are more time-consuming to make, cost more upfront and require a slightly more complex manufacturing process in order to produce products on a mass scale. Real wigs cost anywhere from \$800 to \$3,000, sometimes more.²

By contrast, synthetic wigs are far more affordable for manufacturers and customers alike. Synthetic fibers can be made on a mass scale almost instantly — there's no need to wait for the hair to grow. Most synthetic wigs sell on the market for an average of \$30 to \$500, depending on the quality of the synthetic materials; even the most expensive synthetic wig costs less than the cheapest real human hair wig. However, while synthetic wigs are cheaper to make, they also look and feel less

realistic than real hair, especially if you dye the hair improperly. One of the biggest mistakes that wig manufacturers make is dyeing their products one flat color or using fibers that are too shiny. This is where a spectrophotometer may help.



The most realistic-looking synthetic wigs are multidimensional in color, just like real hair. Image source: Pixabay user Alexas_Fotos

The Best Spectrophotometer for Synthetic Wigs and Extensions

To make a truly realistic-looking synthetic hair piece, you need to dye your synthetic fibers in multidimensional color patterns, as this closely resembles how real human hair grows naturally. If you look closely at a person's natural, undyed hair, you'll see that the individual follicles produce slight variants in color. From a distance, the hair may appear to be a chestnut brown, but when you look closely, you'll see that some pieces are actually a rich chocolate color, and others are nearly red — when combined, these two colors produce a warm chestnut color overall. The best spectrophotometer can help you identify which combination of dye colors will look the most realistic for your wig, and can offer you consistent color measurements that are more reliable than the naked eye is capable of seeing.

Your naked eye is especially inefficient at testing synthetic wig colors, in part because the fibers can vary too much in color, and because the materials are often very shiny. Cheap synthetic hair is usually made from acrylic, which is waxy and has an intense sheen that makes color difficult to measure.³ More expensive materials, such as those made from monofilament or polyfilament fibers, are less shiny than acrylic fibers, but they still have some slight sheen to them in order to make the hair piece appear healthy and aesthetically-pleasing. The problem with shiny materials is that they may look lighter in color than they actually are, making it difficult to test true color. By using the best spectrophotometer that can test for color, [even if the product is shiny](#), you can see exactly which color is present in each batch of fibers that you dye.

Why Color Matters

Most wig manufacturers want to create a natural-looking hairpiece that has both dimension and shine while staying true to the intended color listed on the product's label. Customers expect wigs to be consistent in color from piece-to-piece, and they often rely on product color descriptions to make their purchase decisions. For example, if you describe one of your wigs as "chestnut brown," your customers will be disappointed if they find that the wig is too dark in color. But since realistic-looking wigs use multiple colors, it can be difficult to measure the overall shade.

Instead, you can measure each color individually to ensure that they are consistent from batch-to-batch, and then combine those different-colored fibers in a precise ratio. The best spectrophotometer can give you a precise number associated with each hair color that you intend to make, offering you a [true color standard](#). For instance, to get "chestnut brown" overall, you may dye one batch of fibers chocolate brown, and another a more reddish brown. You can test both of these colors separately using a spectrophotometer. After testing each of your colors for consistency, you then weave both of the colors into a wig — you can use 50 percent chocolate brown fibers and 50 percent reddish brown fibers, or whichever ratio looks most appealing. Once you find the perfect ratio of chocolate brown to reddish brown fibers, you can repeat this ratio for every wig in the future. This gives you a consistent product, even if a wig contains five or more colors.



Synthetic wigs retain dye better than real hair, but you should still test for color retention during the manufacturing process. Image source: Pixabay user shc9607

Test for Color Retention

One of the greatest benefits of synthetic wigs and extensions is that they tend to retain hair dye color much longer than real human hair.⁴ After multiple washes and styling sessions, real human hair can begin to lose its pigment after just a few months. When this happens, customers have to either re-dye the hair themselves (and risk damaging it) or buy a new wig. By contrast, synthetic fibers don't bleed dye as quickly, even after heavy washing. In order to make your product more appealing to your customers, and ensure that both the dye you use and the fibers you create are high in quality, you should also test your wigs and extensions for [color retention](#).

The best spectrophotometer can detect even the slightest fade in color after a few heavy washing sessions. To test this, simply test a sample of your wig materials right after you dye them, and then wash your test sample with shampoo. If your spectrophotometer detects that the color has faded after being washed, you may need to use a [more permanent dye](#) or higher-quality fibers. By testing for color retention in advance, you can assure your customers that your wigs and extensions won't fade, even after heavy use.

HunterLab Innovation

Today's synthetic wig businesses are capable of making a plastic hair piece look and feel just like real hair using innovative materials and technology. Forward-thinking industries like this need to have a partner that is just as dedicated to creating groundbreaking products and services. For more than 60 years, HunterLab has been a leader in the color measurement industry, providing customers with the most accurate and innovative instruments available. Our wide range of spectrophotometers is [specifically designed for the complex needs of our customers](#), from food manufacturers to the beauty industry. [Contact us](#) today to find out how a spectrophotometer can improve your wig manufacturing business. Our goal is to give you the tools you need to provide your customers with the most stylish, realistic wigs on the market.

1. "Wig & Hairpiece Stores: Market Research Report", October 2016, <https://www.ibisworld.com/industry-trends/specialized-market-research-reports/consumer-goods-services/apparel-accessories-stores/wig-hairpiece-stores.html>
2. "Wigs", February 17, 2017, http://www.breastcancer.org/tips/hair_skin_nails/wigs
3. "How Is Synthetic Hair Made?", <http://thebeautybrains.com/2014/05/are-hair-extensions-made-from-human-corpse-the-beauty-brains-show-episode-29/>
4. "The Difference Between Human Hair and Synthetic Hair Wigs", November 14, 2015, <http://getbestwigs.com/2015/11/14/difference-between-human-hair-and-synthetic-hair-wigs/>