



Microblading gives thin brows more definition. Image Source: Unsplash user Soroush Karimi

Avid tweezing was once all the rage in the 90s and early 2000s. Today, however, fuller eyebrows have come back into style and given birth to a new trend; microblading. Whether it's aging, long-term hair removal, or simple genetics, some now find their brow line isn't as defined as they'd like. Microblading is a cosmetic procedure designed to fix that by offering a realistic—and uniquely artistic—way to recreate the appearance of eyebrows using tattoo inks.

One of the most important parts of the microblading process is, of course, color. To ensure the end result is as natural as possible, ink manufacturers have to recreate a rainbow of natural hair colors for a wide variety of clients. Natural colors can be the most difficult to develop, particularly in high-risk tattooing inks. These are long-term products and mistakes will matter. If the color goes on too light or too dark, the results may be unappealing or fade too quickly. Spectrophotometers can be used [in the recreation of natural hair colors](#) to ensure an optimal result through better, more accurate formulas.



Microblading lasts 1-3 years, eliminating the need to fill in brows every day. Image Source: Unsplash user The Digital Marketing Collaboration

How Microblading Works and Its Risks

Microblading is quickly becoming one of the most popular cosmetic procedures in the United States. According to a study of professionals completed by the Society of Permanent Cosmetic Professionals, 100% of industry respondents offer the service and reported it's the one in highest demand from new clients.¹

During the procedure, the technician starts by outlining the brows in non-permanent makeup, to determine the shape. Then they fill them in with the permanent ink using an extremely small caliber blade. Overall, it takes about 2 hours, has few side effects and, for most, it's an entirely painless procedure. The client walks away with natural appearing brows that, while not strictly permanent, will last anywhere from 1 to 3 years.

A key part of getting this process right is in the ink the technician uses. While the FDA doesn't specifically regulate these inks, they do offer some guidelines on their use and note the following concerns have been reported:²

- **Adverse reactions:** Many pigments used in this type of tattooing are plant-based, though metals like iron oxide, cobalt, and even mercury have been used. As these are not compounds that naturally occur in the human body, the potential for an allergic reaction is present. As a result, companies tend to build on pigments that have been proven to have low adverse reaction rates to limit risk.
- **Microbial contamination:** While the tattoo ink is never introduced into the bloodstream, there is still the potential for infection, though it is very small. If things like yeast, bacteria, mold, or other similar pathogens are present in the ink, they can cause an infection of the

skin which has the potential to spread. Most ink manufacturers have very specific creation and storage protocols they follow to minimize this risk.

- **Pigment diversity:** The FDA notes that more than 50 shades and pigments are used for cosmetic tattooing and that number continues to grow as the process gets more popular. This makes ensuring their safety difficult as companies work with a number of unknown variables in creating their shades.

In creating a safe, effective permanent cosmetic, companies must therefore carefully cultivate their formulas. Often, it is preferred to tweak existing recipes that are known to be successful to reduce the risk while improving the color options available to consumers. [Spectrophotometers can be used in the cosmetic creation process](#) to develop formulas that achieve a consistent, desired color that wears well over time.



With the right color combination, microblading results in a natural, defined appearance. Image Source: Unsplash user Haley Rivera

Using Spectrophotometers to Create Inks For Microblading

While microblading technicians typically mix the final color to provide a tailored look, the individual pigments they work with must be accurate and consistent in order to achieve their desired result. Hair color, after all, isn't something that's flat and static. As such, mixing a custom shade requires that technicians use several hues and tones and all of these must be exact to create the look customers want. For example, technicians should be able to clearly predict that using a brown 2 with a violet .20 will result in brown 2.20—a deep auburn.³

This is where the technician is entirely dependent on the manufacturer: if that violet .20 or brown 2 is a little bit off, it will be obvious in the result and compromise the technician's ability to predictably mix shades. [Spectrophotometers](#) are therefore essential to ensure ink manufacturers have [the](#)

[objective data they need](#) to perfect ink formulations and continuously monitor inks throughout production. Using advanced spectral technology, these instruments allow for the highest degree of color quality control to detect even minute variations in color and alert operators to out-of-spec product. As such, manufacturers can be assured that only correctly colored products are released in the marketplace.

HunterLab Versatility

HunterLab has been a pioneer in color measurement for over 60 years. Today, we offer an innovative range of [portable, benchtop, and on-line spectrophotometers](#) designed with the diverse needs of our customers in mind. For ink manufacturers, these instruments are essential for the creation and consistent production of base colors that help permanent cosmetic technicians in the microblading process. [Contact us](#) for more information about our renowned spectrophotometers, customizable software packages, and world-class customer support services.

1. "SCPC Industry Profile Study", 2015, https://www.spcp.org/wp-content/uploads/2012/07/SPCP_Vision_2015_Final.pdf
2. "FDA: Tattoos & Permanent Makeup: Fact Sheet", <https://www.fda.gov/Cosmetics/ProductsIngredients/Products/ucm108530.htm>
3. "International Color Charts for Hairdressing", April 20, 2013, <http://hair-and-makeup-artist.com/international-colour-charts-hairdressing/>