Color accuracy and consistency are absolutely essential in birth control pills. That's because many types of birth control pills are color coded based on how much active hormone they contain. This unique color coding system helps birth control users distinguish between the different types of pills in the packet and encourages medication adherence; users can look at both the color and the order of the pills to ensure that they're taking them as prescribed. However, if a pharmaceutical company accidentally places these pills in the wrong order, or they fail to test for color consistency in their products, these mistakes could have serious consequences for the manufacturer and the user alike.

For this reason, pharmaceutical companies need to have reliable color quality control protocols in place when they color code their birth control pills. A state-of-the-art spectrophotometer can help you catch potential problems early, ensuring that your birth control pills are consistent in color from batch to batch. By making color quality control a priority, you can produce birth control pills that are effective and easy for your customers to use consistently every day.

Why Birth Control Pills Come in Different Colors

The primary reason birth control pills often come in different colors is that color coding makes it easier for users to see which pills contain active hormone and which are placebos. Most manufacturers create a 28-day birth control regimen—the first three weeks' worth of pills contain the hormones estrogen or progestin, while the last week of pills contains no hormones at all. While not all birth control pills follow this 28-day cycle, this is the most common birth control regimen.

Typically, in this type of regimen, manufacturers use two very different colors to make it clear which pills contain active hormones and which pills are placebos. Color coding encourages birth control users to take their pills consistently and in order; rather than skipping a week worth of pills every month, users take seven colorful placebo pills instead. However, for this process to work effectively, manufacturers must ensure that their placebo pills appear distinct in color compared to the active pills so that users don't take the placebo at the wrong time.

The Risks of Incorrect Color in Oral Contraceptives

Consistent color in birth control pills isn't just a matter of aesthetics; if the pills in a packet are placed in the wrong order, or the active pills are too close in color to the placebo pills, your customers will have a difficult time distinguishing one pill from another, putting them at risk for unwanted pregnancy and health complications. For example, one birth control manufacturer recently recalled a large batch of product because the pills were placed out of order; the manufacturer accidentally placed the maroon-colored placebo pills at the start of the pack, when these pills should have been placed at the very end. 2 If a user had taken the maroon-colored row of pills first, they would have been left without contraceptive protection and potentially compromised their health.

Users of this brand of birth control pills were able to notice this mistake precisely because the color of the placebo pills differed from the color of the active pills. If the two types of pills had been the same color, neither the user nor the manufacturer would have caught the problem. As such, accurate coloration can have significant protective benefits while color errors can seriously compromise patients' adherence ability; without a clear distinction between the placebo pills and the active pills, users may not know which pill to take even when numbered correctly. You can prevent this problem by using a spectrophotometer designed to measure the color of pills and tablets.

Full article with photos available here:

https://www.hunterlab.com/blog/color-pharmaceuticals/maintaining-color-quality-control-in-birth-control-pills-protects-patient-health/