



Utrecht Art Supplies

Oil Paint: Machine Milled vs. Hand Dispersed



Ask the Expert: "Which is better: hand-mulled oil paint or machine-made?"

A: Hand-dispersed and mechanically milled artists' oil colors each offer distinct advantages.

Hand Dispersed Paint, made using using a muller (or sometimes using a mechanically assisted, spinning muller) is developed slowly, giving the craftsman a great deal of control over stiffness and pigment concentration.

Hand-mulled paint is typically made using very high-quality materials on a par with top professional-grade, factory-made colors. Hand-dispersed paints often include premium vehicles like walnut and cold-pressed linseed oil, bringing them closer in formulation to historical, "old master" paints. However, since hand-mulled paints don't usually include stabilizers, amendments or driers, consistency can be uneven.

Paint that is made without amendments such as driers exhibits a wider range of drying rates, so the artist using these types of colors should understand the natural character of each pigment involved to ensure good results.

Another aspect of unamended, hand-made paint is that the pigment influences rheology to a greater degree than in factory-made colors. Pigments that yield a stringy, short or waxy character tend to reveal their full "personality"

without additional ingredients to modify paint body.

Affordability, huge range of colors and reliable consistency from batch to batch are key advantages to mechanically milled paints. In factory-made paint, precise application of amendments, driers and stabilizers gives a high degree of control over paint rheology and drying time, and extends shelf life. Stabilizers minimize separation and shedding of vehicle, so the prepared product maintains a homogeneous dispersion in storage.

The three-roller mill, which applies shear force and crushing power to reduce particle size and break up clusters, makes extremely efficient use of pigment. By reducing particle size and thoroughly enveloping each particle with the vehicle, resulting paints are luminous and consistent from batch to batch.

Regarding the cost of hand-made vs. Machine made colors, labor is a significant factor in the price of hand-made paint, which can cost several times as much per tube as mechanically milled colors. Economies of scale and replacement of hand labor with mechanical force dramatically reduces the price of factory-made paint.

Hand-made colors offer a way for the modern painter to experience the craft as historical artists once did. Many artists enjoy the variety of working properties offered by hand-dispersed paints, and find ways to leverage differences in drying rate for complex layered effects.

For most painters, factory-made colors form the bulk of the modern palette, but even artists who typically only use machine-milled paint should try handmade colors at least once. Introducing a ropy white, for example, can dramatically change textural and pictorial effects. Artists

using handmade paint for the first time should expect some free oil at the top of the tube, and should also prepare for some colors not to have the typical, "buttery" feel of paint milled with stabilizers. There may also be tiny, visible granules where harder pigments are used. As with all types of paint, the best approach is to work with the characteristic properties, and let the material guide you toward your goals.

Questions? [Ask the Expert](#)

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