



Utrecht Art Supplies

Studio Craft: Benchmark Tests for Artists' Colors

Want to know how paint performs in terms of color strength and workability? Use these tests to evaluate and compare what's inside the tube!



Objectives:

- Learn to compare analogous colors between brands
- Objectively define the properties of paint
- Gain a better overall familiarity with the materials of the craft

Supplies:

- Two brands of the same test color
- One standard mixing white

In addition to test colors, you'll need:

- Glass palette
- Palette knife
- 1 1/2" metal putty knife
- Plastic measuring spoons
- Paper towels
- Appropriate solvent for cleanup

Mass Tone and Undertone

The range from mass tone to undertone gives expressive and descriptive potential to a color. Use this test to reveal clean, intense color with the classic characteristic appearance of the component pigment.



Mass Tone is the appearance of a color straight from the tube or jar.

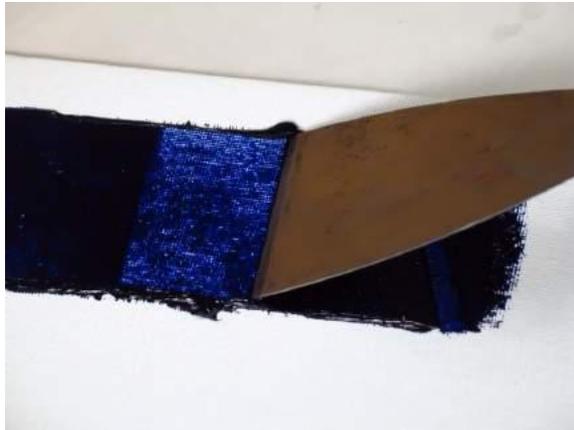


To examine mass tone, deposit a small amount of paint on the glass palette and gather it on the putty knife. Perform a draw-down on a

canvas board, creating a uniform stripe that fully obscures the white primed surface.

Clean instruments thoroughly, then repeat with a second test color, placing the two samples close together on the board.

Undertone



"Undertone" describes the subtle variations that become apparent in mixtures and glazes. These variations can be revealed by mixing with white or scraping thinly over a white support.



To reveal undertone, perform a draw-down, using the putty knife to create a stripe of color on a canvas board. Firmly scrape down the bottom half of the sample so the canvas is visible. This technique is also useful to reveal a difference in covering power between two test colors.

Working Properties

"Workability" describes how well paint can be moved and distributed, and how well it facilitates strokes and surfaces. This test reveals essential physical behavior when paint is manipulated with brush and knife.



Distribute a small amount of paint on the glass palette.



Press down with a palette knife and lift. Note the "length" of the sample, whether it pulls in strings or breaks short.



Spread the sample thinly on the palette, noting viscosity. Gather with the putty knife and observe how well the paint forms and retains peaks; note any slumping of the pile.



Rub paint against the glass with the flat of the palette knife; feel for grit or irregularities. Look for visible pigment grains and undispersed clusters.

In evaluating working properties, describe paint in terms of:

- Smooth or Grainy
- Buttery or Ropy
- Stiff or Loose
- Oily or Waxy



Tint Strength

The percent of pigment in paint can't be determined by stiffness or mass-tone appearance. Pigment concentration is only revealed by testing tint strength.

Tint strength is measured by the degree of change two versions of the same color are able to induce in a standard white. High tint strength indicates good pigment load and thorough processing. Poor tint strength reveals lower pigment levels and might also indicate the presence of fillers.

For a successful comparison, it's essential that both test colors have the same pigment composition. This can be determined by the Color Index Name printed on the tube. (PB 29 Ultramarine Blue is the test color in this document). Any titanium white can be used as the standard, provided it is of similar quality to the test colors.



Measure one level $\frac{1}{4}$ teaspoon of each color and two level tablespoons of the standard white. Take care to eliminate any air pockets in the measuring spoon. Select sample #1 and one spoon of white; set aside sample #2 and the remaining white.



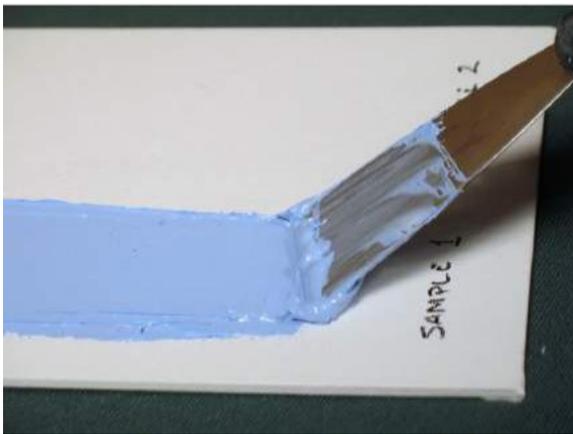
Place the white paint on the glass palette along with the first sample of color. Use a palette knife to remove as much paint as possible from each spoon.



Use the putty knife to combine the sample color and white, alternately spreading and gathering.



Use the palette knife to scrape down the sides of the putty knife so no unmixed color remains.

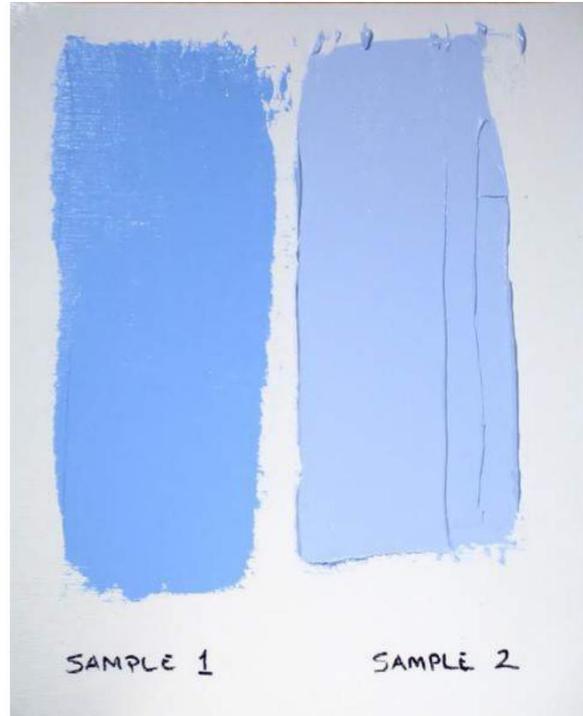


Gather the blended sample with the putty knife and spread an even, opaque stripe on the canvas board.

Clean knives and palette thoroughly so no trace of the first test sample remains.



Once the palette and instruments are clean, proceed to the second sample.



When a homogeneous mixture has been achieved, use the putty knife to place a stripe of sample #2 on the canvas board, as close as possible to the first without mixing or touching.



Observe the contrast between the two samples. The sample with better dispersed, more heavily pigmented paint will exhibit a greater degree of color change, and will appear more intense and dark. Firmly scrape down the bottom half of each sample to reveal undertone.

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