

Matte and Fine Art Papers for Inkjet Printing

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Most photographers making the transition to digital inkjet printing choose gloss, semigloss or luster paper stocks that are common to traditional chemical printmaking. As proof of their popularity, inkjet manufacturers offer a variety of resin coated papers that look and feel virtually identical to their chemical cousins. However, one of the greatest advantages of inkjets, besides their low cost and stunning photographic output, is the ability to choose a wider variety of papers than with any other photographic printing process. No longer are you limited to three or four types of paper surfaces.

While the major inkjet manufacturers all offer their own name-brand papers, third-party papers are available in a wider variety of surfaces, colors and coatings. In addition, many offer better archival performance than inkjet manufacturers' own papers. However, if you're considering exploring alternative papers, the options can be overwhelming. To help you narrow the list of choices, I set out to test a variety of the more popular matte and fine art papers available.

The papers were tested on an Epson Stylus Photo 2200, which uses pigment inks. The papers represented here should print equally well with dye inks, however the coatings on many of these papers are formulated for pigments and may actually reduce the longevity of dyes. If you are concerned with image permanence, contact the paper manufacturers for information on which type of ink their paper performs best (many have this information readily available on their web sites). Finally, paper choice is highly subjective. Most of the papers listed here are available in sample packs, so be sure to do your own tests before purchasing large quantities of paper.

Matte and Fine Art

Matte and fine art papers typically offer the greatest archival stability compared to glossier papers, with image permanence often approaching – or even exceeding – 100 years with pigment inks. In addition, I prefer matte papers because I don't like the reflective sheen of semigloss and luster papers which can easily be seen even when framed behind glass.

The term "fine art" seems to imply that only great works of art can be printed on these papers, but of course that's not the case. Fine art papers are often thicker and heavier than plain matte papers, with a variety of surface textures including smooth, satin, velvet and watercolor. As a rule, they are more expensive than regular matte papers, and sometimes considerably more. Matte papers are the best choice when you want an economical paper with the smoothest surface and the best photographic output. Choose fine art papers when you want the texture of the surface to lend a certain characteristic to the print, or you simply want the paper to feel more luxurious in a potential customer's hands. As an additional benefit, many fine art papers now rival the best matte papers in terms of photographic quality.

Terminology

A number of terms are used to describe the characteristics of paper. Weight is commonly expressed in grams per square meter (gsm or g/m²). This is simply the weight in grams of a hypothetical square meter of a particular paper. A heavier paper feels more substantial, but it doesn't guarantee better print quality. The thickness of a paper, or caliper, is specified in mils (thousandths of an inch). A thicker sheet of paper also feels more substantial and can often handle greater ink loads, even if it's the same weight as a thinner paper. Finally, paper surfaces are described with terms like smooth, satin or velvet. Smooth papers have little-to-no surface texture, whereas satin papers have a soft, satin feel to them and velvet papers tend to feel a little rougher.

The Papers

I tested twelve papers, ranging from inexpensive matte papers costing under \$1.00 per sheet to high-priced fine art papers costing several times as much. To judge each paper, I printed the standard PhotoDisc target image, which includes common colorful

objects, areas with shadow detail and skin tones useful in judging prints. I've added a gray ramp to the side of the target to help judge absolute black and linearity of tones. I also printed a selection of my own images consisting of saturated blues, yellows, reds and greens to make real-world judgments.

Epson Enhanced Matte/Archival Matte – Epson Enhanced Matte – formerly named Archival Matte – is used as the baseline for comparison to all the other papers tested. Enhanced Matte is a single-sided paper with medium thickness and weight, and a smooth, soft white (slightly warm) surface. Print quality is excellent, with deep blacks, saturated colors and good shadow and highlight detail. Enhanced Matte contains some acid content, which might cause the surface to yellow over time, so it cannot be considered archival (hence the reason Epson changed the name). Archival Matte had the Epson logo printed repeatedly on the reverse side, with arrows showing which direction to feed the paper. This didn't appeal to artists and photographers selling their work as fine art, so Epson reportedly removed the logo and arrows when they renamed the paper (I have not seen the new Enhanced Matte in cut-sheet sizes yet, so I can't confirm it does not have the logo). Even with these flaws, Enhanced Matte is an incredible value. It's the least expensive paper tested, yet offers outstanding print quality. It's the best choice for everyday printing or for projects that do not require absolute archival stability. Users of dye-based printers should opt for Epson's Matte Paper Heavyweight, which prints virtually identical but offers better longevity with dyes.

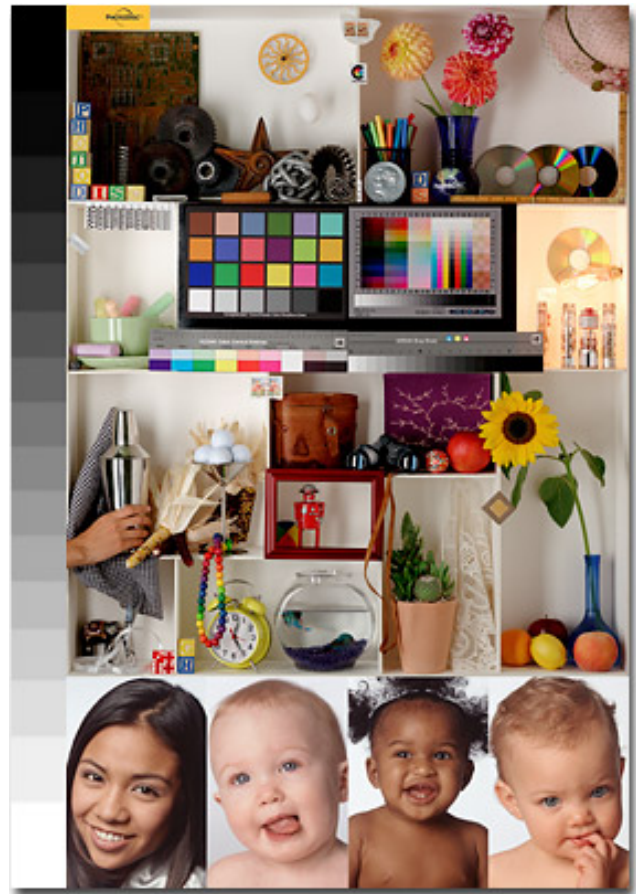
Legion Photo Matte – Legion Photo Matte is a single-sided paper, with a smooth, bright white surface. It's heavier and whiter than Enhanced Matte. Print quality is very good, with good blacks, though not quite as deep as Enhanced Matte. The black ink appears to sit on the surface, causing a slight sheen when viewed at an angle. The effect is only evident in areas of heavy black however, and real-world prints on Photo Matte appear to be very good. According to Legion this paper is 100% alpha cellulose, which is a high-grade wood pulp product that should offer the same archival qualities as cotton and is acid-free. The reverse side is blank. Legion Photo Matte is slightly more expensive than Enhanced Matte, but its good print performance and better archival potential make it worth considering.

Red River Polar Matte – Except for a slight difference in the quoted weight and caliper, Red River Polar Matte appears identical to Legion Photo Matte and prints exactly the same. Red River does not document what the paper is made of, only that it is acid-free. When asked, a representative from Red River confirmed that Polar Matte is from wood pulp, but could not verify the exact grade. It's priced the same as Photo Matte and the two may very well be the same paper.

Hahnemühle Photo Rag – Hahnemühle Photo Rag has a reputation as a fine art paper with excellent photo quality and that reputation is well deserved. The printing surface is a smooth, soft white similar to Enhanced Matte, but Photo Rag is not quite as heavy. The stock I tested was single-sided, but a double-sided version and heavier stocks are also available. Print quality is right on par with Enhanced Matte, with deep blacks, good contrast and color saturation. The reverse side is plain white with a nice satin texture, and the paper is 100% cotton rag (archival and acid-free). Like many fine art papers, Photo Rag is vulnerable to some "flaking," where surface particles can rub off after printing, leaving small white specs visible. I did not find this to be a serious problem, and it can be reduced by wiping the paper's surface with a cotton glove before printing. The only major drawback to Photo Rag is its price, which is more than three times that of Enhanced Matte.

Brightcube Eclipse Satine – Eclipse Satine is a double-sided fine art paper with a bright white smooth satin surface on one side and a slightly more textured surface (almost like a watercolor paper) on the reverse. I tested the satin side, as it is comparable to Enhanced Matte. The paper is a similar weight to Enhanced Matte, but is thicker and whiter. As with Hahnemühle Photo Rag, print quality is as good as Enhanced Matte, with good contrast and deep blacks. Eclipse Satine is also available in a heavier weight (300 gsm) and a soft white version that contains no optical brighteners. The paper is 100% cotton rag and acid free. Unfortunately, since testing this paper I learned that Brightcube has gone bankrupt. The papers are still available from some distributors at a significant discount, and rumor has it that Brightcube's product line is being acquired by another company.

Hawk Mountain Merlin – Hawk Mountain Merlin is a single-sided, 100% cotton fine art paper with a smooth, soft white surface. The paper is substantially thicker and heavier than Enhanced Matte. The reverse side is plain white, with a velvet-like surface. Once again, print quality is on par with Enhanced Matte with perhaps slightly less contrast. The difference is very small and would



probably be eliminated with a custom profile. Merlin is twice the price of Enhanced Matte, but if you're looking for an archival paper with excellent print quality, it should be high on your list.

Crane Museo/LexJet Soft Fine Art/Red River Polar Art – I tested LexJet Soft Fine Art and Red River Polar Art. LexJet rebrands Crane Museo paper, and Polar Art looks, feels and prints exactly the same, so it is likely also made by Crane. The paper is heavier and thicker than Enhanced Matte, with a slightly more textured surface. Print quality is good, but blacks are not quite as deep as Epson's paper, resulting in lower contrast. I would expect some experimentation with driver settings or a custom profile to improve quality. The paper is 100% rag, acid-free and the reverse is plain white.

Hawk Mountain Osprey Smooth – Another fine art paper by Hawk Mountain, Osprey Smooth actually has more of a satin surface texture, as opposed to Merlin which is smoother. Osprey is the same thickness and similar weight to Merlin, which is substantial compared to Enhanced Matte. Print quality is very good, though the blacks are not quite up to that of Merlin or Enhanced Matte. To be fair, this paper is better compared to Somerset Photo Enhanced Velvet, reviewed below, because of its more substantial surface texture. Osprey Smooth is 100% cotton rag and acid free. Osprey is also available in Velvet and Textured versions.

Somerset Photo Enhanced Velvet – Somerset Velvet from Legion Paper has long been used for fine art printmaking on Iris giclée printers (giclée is a fancy word for inkjet). Photo Enhanced, an updated version with an inkjet receptive coating to improve saturation and contrast, has gained a reputation as an excellent photo-quality fine art paper. The paper is heavier and thicker than Enhanced Matte, with a bright white, velvet surface. Contrast and saturation are good with blacks not quite as deep as Enhanced Matte. Considering the surface texture (one of the primary reasons for choosing this paper), the print quality is very good. The paper is 100% cotton rag and acid free. The surface offers good resistance to scuffing and flaking, but as with all fine art papers, prints should be handled with care. This paper is also available as Somerset Photo Enhanced Textured, which has the same texture and feel of watercolor paper.

Ilford Fine Art – Ilford Fine Art is a single-sided paper with a similar weight and thickness to Enhanced Matte. The paper is soft white in color, with the roughest surface texture in this roundup. Even behind glass, Ilford Fine Art's surface texture would be readily visible. Print quality was a surprise, with excellent blacks and contrast rivaling Enhanced Matte. This is a truly photographic art paper, which is amazing considering the surface texture. However, it was the most susceptible to flaking of all the papers I tested, so extreme care should be taken with prints. The paper is 100% cotton rag and acid-free, with a plain white back. Ilford Fine Art's quality comes at a price; it was the most expensive paper tested.

Purchase Information

The papers reviewed here can be purchased at the following online merchants:

- www.inkjetgoodies.com
- www.hawkmtartpapers.com
- www.redrivercatalog.com
- www.lexjet.com

Matte and Fine Art Paper Comparison Table

Paper	Surface Texture Color	Color	Weight	Caliper	Cost per 13x19" Sheet*
Enhanced Matte	smooth	soft white	192 gsm	10 mil	\$0.98
Legion Photo Matte	smooth	bright white	230 gsm	10.5 mil	\$1.20
Red River Polar Matte	smooth	bright white	225 gsm	10 mil	\$1.20
Hahnemühle Photo Rag	smooth	soft white	188 gsm 308 gsm	-	\$3.32
Brightcube Eclipse Satine Bright White (also available in soft white)	satin	bright white	190 gsm 300 gsm	-	\$1.56
Hawk Mountain Merlin	smooth	soft white	255 gsm	15 mil	\$2.60

Crane Museo/LexJet Soft Fine Art/Red River Polar Art	smooth	soft white	250 gsm	15 mil	\$2.70
Hawk Mountain Osprey Smooth	satin	soft white	250 gsm	15 mil	\$2.60
Somerset Photo Enhanced Velvet	velvet	bright white	225 gsm	15 mil	\$3.40
Ilford Fine Art	rough	soft white	190 gsm	-	\$3.96

*Prices may vary.

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