Papers with No OBAs

Un-brightened or "natural" papers, which contain no optical brightening agents ("OBAs"), often have the most even, neutral tones, and they will probably stay that way longer. The OBAs are dyes that fade quickly, causing the print to warm.

The "natural" (non-OBA) papers have tones that roughly match the Light Impressions Gallery White and similar mat boards, which usually use un-brightened paper. This good match allows one to show a paper border inside the mat that is not distracting due to a poor tonal match to the paper. Such border with a signature is often desirable for fine art.

The un-brightened papers range from essentially neutral to a Lab B of over 4 (medium warm).

People generally view a negative Lab A as greenish and undesirable. A positive Lab A gives a tone similar to the traditional selenium toned silver prints. To some extent, the eye appears to use the paper white as a frame of reference.

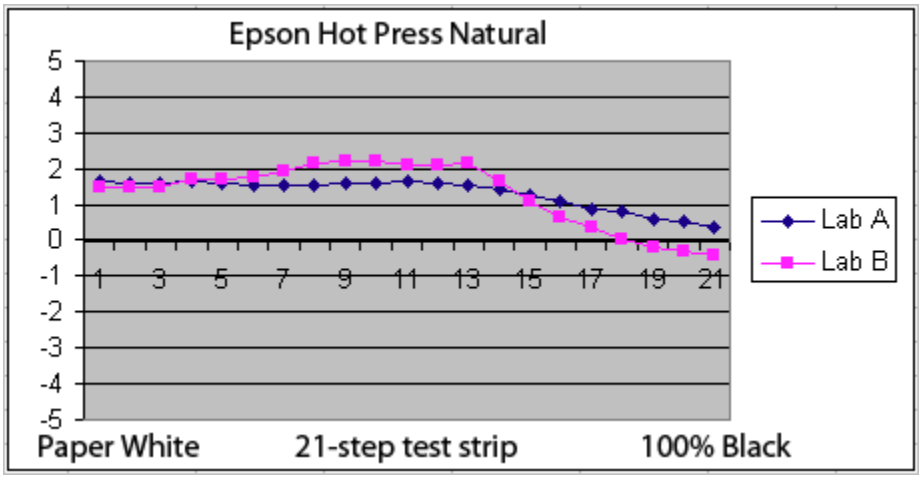
Although the un-brightened papers look creamy next to a "brightened" paper with OBAs, particularly in daylight, the spectros often measure the non-OBA papers as having a higher luminance than the brightened ones. The perception of brightness from OBAs is due to their cool tone and fluorescing in the presence of UV light. (The OBA dyes absorb the UV and re-emit the energy as visible, bluish light.) Thus much of the OBA "brightness," works only in the presence of UV light, which is mostly in daylight. Regular glass and acrylic filter out much of the UV light, and typical warm inside lighting conditions contain little UV. As such, while the brightened papers will still have a cool look, the brightness differences one sees in daylight are much reduced in typical indoor display.

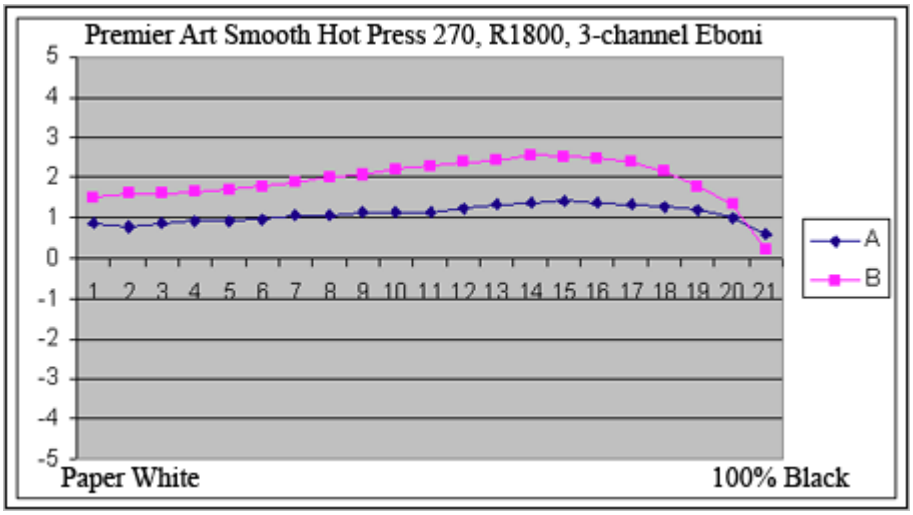
The graphs below are in order of increasing image warmth.

The new "champ" in the paper race is Epson Hot Press Natural. It provides an essentially neutral image with a very high dmax.

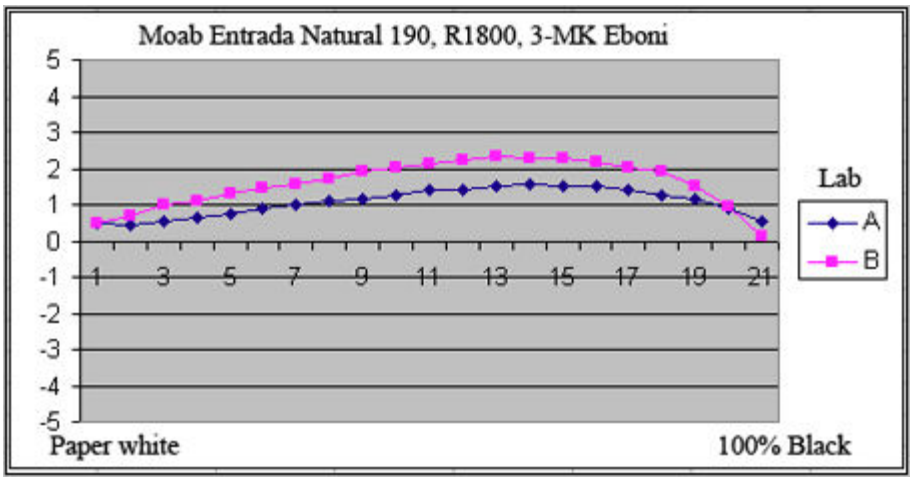
Premier Art Smooth 325 is one of my standard papers. In the 1800 it loads fine if just a minor assist is provided. However, it may have feeding trouble in the R800. So, for that printer I'd recommend trying the 270 gsm weight version of Premier Art Smooth. These papers also generate very good dmax's. They look very neutral to me and match my mat boards quite well. The graphs below show the tones of these papers in an objective manner.

Note that I tend to prefer smooth papers with little texture to interfere with the details of my medium format, Technical Pan images. The papers below are all relatively smooth.

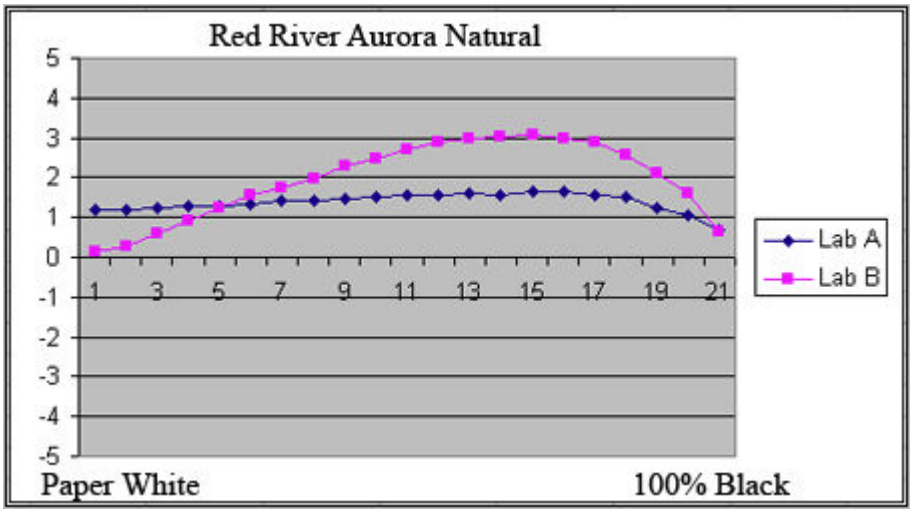

Epson Hot Press Natural
5
4
3
2
1
0
-1
-2
-3
-4
-5
1
3
5
7
9
11
13
15
17
19
21
Lab A
Lab B
Paper White
21-step test strip
100% Black


Premier Art Smooth Hot Press 270, R1800, 3-channel Eboni
5
4
3
2
1
0
-1
-2
-3
-4
-5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A
B
Paper White
100% Black

Many people like Moab papers. The Entrada Natural is relatively neutral, even tones, a bit warmer than the papers listed above. For a good feed the 190 weight might be preferable.

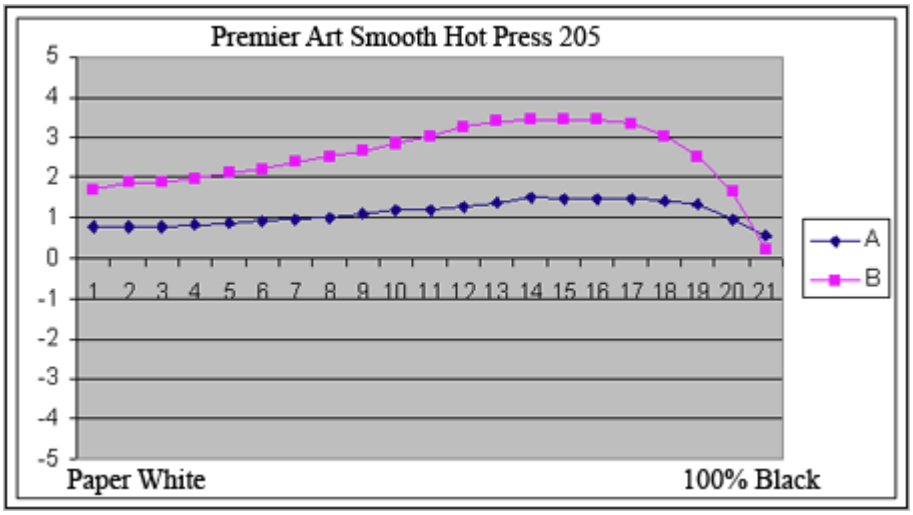


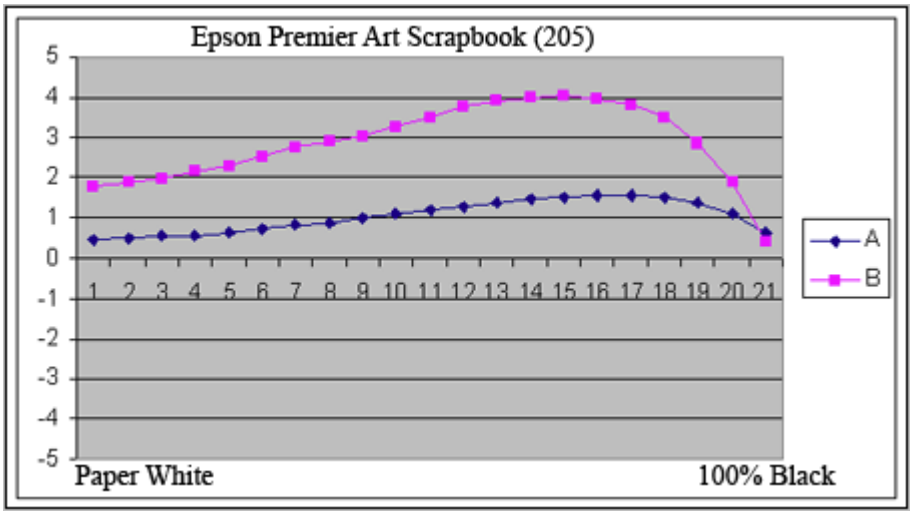
Aurora Natural from Red River deserves special mention for those looking for a good paper with a good price. While the Moab (Legion) paper is just a bit more neutral and has a bit higher dmax, the Red River paper is much less expensive. See http://www.redrivercatalog.com/browse/auroranatural.html



Premier Art's 205 gsm version of its smooth, hot press paper, below, has slightly warmer shadow tones and a dmax that is a bit lower than its 270 and 325 siblings, above, but it's also a bargain and feeds into the printers very well, particularly the Epson Premier Art Scrapbook version, which tends to have less

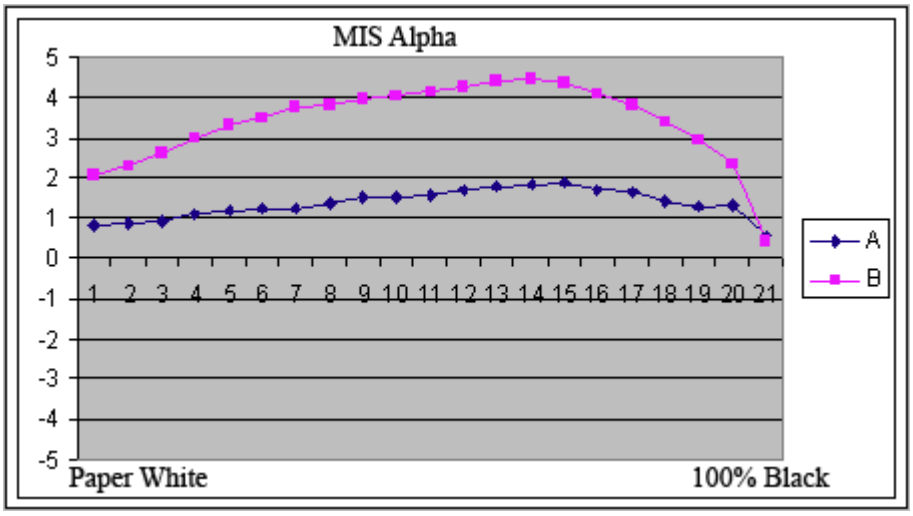
curl. The Epson Scrapbook paper is discussed further below. In general, the Premier Art papers have been relatively free from flakes and dust on the coating, a problem that has plagued some inkjet papers. These papers are the ones I use most frequently for my personal printing and gallery sales of 11 x 14 prints. For more information on their smooth, hot press cotton papers see http://www.premierimagingproducts.com/pm_smoothhp.php .





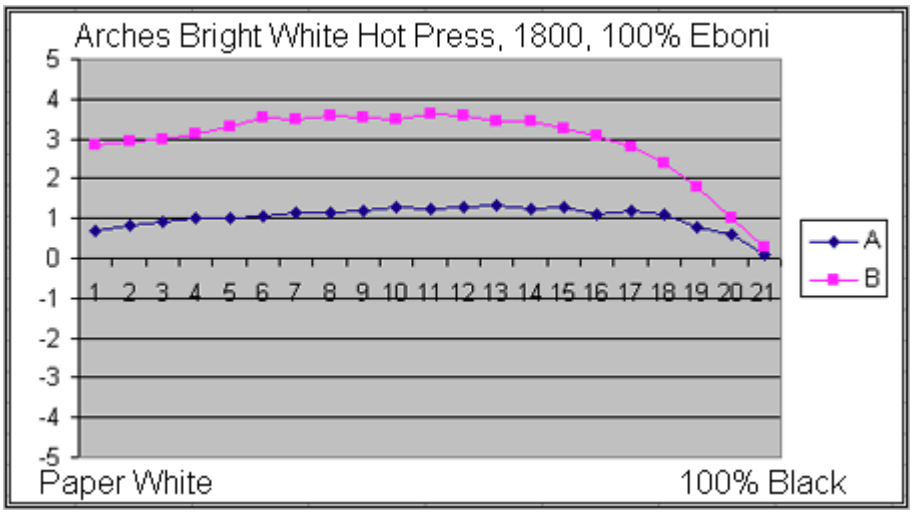
Epson Premier Art Scrapbook (205 gsm) is something of a benchmark paper. It is competitively priced, widely available, prints smoothly, and feeds well into printers. It is Epson's most archival paper, according to them. The graph above makes it appear slightly warmer than the Premier Art branded version. Whether this is just paper batch differences or not is unknown. I consider them to be essentially the same paper. http://www.atlex.com/ has very good prices on the Scrapbook and Premier Art versions of these papers, and I recommend at least

testing a package of the Epson Scrapbook paper to see what the smoothest, most archival paper looks like. It is an affordable benchmark against which others must be compared.



MIS Alpha (Innova soft texture, un-brightened coating on an alpha cellulose base) is a favorite for warmer images, such as my southwest shots. While the graph may not look much different than the Premier Art 205, above, note the light midtone differences, which is where the tones are most apparent. The paper has a very subtle texture to it. I think it gives it a richer texture without distracting from the photographic detail.

Traditional un-coated Arches Bright White Hot Press 140 (300 gsm) water-color paper (below) is also an un-brightened paper, and one that might make an interesting alternative to the inkjet papers in some, limited situations. I suspect there are some fine art markets that assume Arches watercolor paper is superior to inkjet paper. My fade tests do not show this, but accelerated fade and age testing is not totally reliable. In a mylar sleeve and at viewing distance, this Arches Hot Press paper makes a good photographic image. In the deep black shades between 95% and 100% there is some reflective unevenness – that is, the print is blotchy. However, the reflective nature of a mylar sleeve effectively hides this artifact. I suspect normal framing with glazing will do likewise. On the other hand, I would not use this in a photo that is not behind glazing, and in almost all cases a standard, coated, matte inkjet paper is going to make a superior image to what an un-coated watercolor paper can achieve.


Arches Bright White Hot Press, 1800, 100% Eboni
5
4
3
2
1
0
-1
-2
-3
-4
-5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A
B
Paper White
100% Black