

## Carbon-6, Dilute Eboni-based Inkset

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6-10-2010

The “Carbon-6” (“C6”) inkset outlined here is an open-source version of the Eboni-6 inkset.<sup>1</sup> Whereas Eboni-6 is purchased pre-mixed from MIS, the Carbon-6 alternative uses an open-source, user-mixed base, described at <http://www.paulroark.com/BW-Info/Ink-Mixing.pdf>.<sup>2</sup>

Suitable for many Epson printers, Eboni and Carbon-6 have been the most trouble free inksets I’ve ever used. My college kids, away at school, have used the EZ version in C88+ printers for a couple years. Using an inexpensive CIS, the C88+ printers run all school year long with no maintenance. I doubt there is a cheaper, easier, more reliable, as well as more lightfast inkset available from any source.<sup>3</sup>

Carbon-6, along with MIS PK, LK, and LLK are in my 7800 currently. These 100% carbon inks allow me to print tones from essentially neutral to warm on matte paper and sepia on glossy paper.

Agitation is required with this inkset. While all pigments settle, the Eboni in Carbon-6 and Eboni-6 settle faster than normal. As such, while it’s very consistent in desktop printers, where normal printing agitates the carts, in wide format printers agitation of the carts is required. I simply remove and agitate my 7800 carts before I turn on the printer. Some who use funnel-filled carts find that syringes can be used to agitate the inks in the carts. With a 3800, a CIS with Carbon-6 would be easy to agitate.

Carbon-6 is for matte paper printing, as the Eboni carbon particle does not have a glossy coating.

While Eboni is the most neutral carbon pigment I’ve found, it still tends to be warm on most papers when diluted. The paper used makes a significant difference. A few papers do result in quite neutral images. Premier Art Smooth BW is the most neutral paper I’ve found with this approach. It uses brighteners, which might be a problem for fine art uses. Arches Hot Press un-coated watercolor paper is creamy but holds the change in Lab B of the carbon image to

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<sup>1</sup> By the way, “C” is the symbol used for carbon in chemistry, and the atomic number of carbon is 6. See <http://en.wikipedia.org/wiki/Carbon>. But I intended the “6” to refer to the number of different densities of carbon pigments are in the inkset.

<sup>2</sup> As noted in the In Mixing PDF, there are several different versions of the base I recommend. The 1.5 pl printers print much more smoothly if Edwal surfactant is used in the base mix as well as Photo Flo.

<sup>3</sup> The EZ version of the dilute Eboni inkset for the C88 is discussed at <http://www.paulroark.com/BW-Info/C88-C13-5.pdf>. Only one 13.5% dilution is used for all 3 colors.

just over 3 units. It makes a print that is just slightly warm. Epson Hot Press natural is a new coated paper that produces near neutral image tones, holding the change in Lab B to about 2 units, with an outstanding dmax and smoothness.<sup>4</sup>

### **Carbon-6, Dilute Eboni Mixing Ratios<sup>5</sup>**

C6, v. 2 uses the same mixing ratios as Eboni-6. These are all standard mixing ratios or densities that have been used for years in other inksets I've designed. They have worked well in all Epson printers I've worked with. As such, I have a preference for these traditional mixing ratios and densities:

K = 100% Eboni  
C = 30% Eboni, remainder C6 base  
M = 18% Eboni  
LC = 9% Eboni  
LM = 6% Eboni  
Y = 2% Eboni  
LK = 18% Eboni  
LLK = 6% Eboni

### **Workflows**

For workflows, print tones, etc. see <http://www.paulroark.com/BW-Info/Eboni-6.pdf>. The two inksets are essentially identical.

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<sup>4</sup> See <http://www.paulroark.com/BW-Info/Carbon-Print-Tones.pdf> for more on print tones.

<sup>5</sup> The original, version 1, of Carbon-6 used mixing ratios that were different than Eboni-6. The C6, v.1 ratios were made to facilitate easier mixing without scales. For details of the progressive mixing used above, see <http://www.paulroark.com/BW-Info/C6-Progressive-mix.pdf>. Since it used different mixing ratios than Eboni-6, the profiles would be slightly different.