Optimizing Ink Usage in EPSON Stylus Pro 7600 and 9600 Printers

By design, expended ink cartridges will always have some ink remaining, even after the printer indicates that the cartridge can no longer be used. This feature is intended to protect the permanent heads of the printer from going dry, which can severely damage the printer. The amount of remaining ink will vary for various reasons, such as number of cleaning cycles, ink charges, printing pattern and printing environment. This protective feature is used by Epson and many other manufacturers of sophisticated printers. Therefore, Epson generally markets its inks based on the yield from the cartridges rather than the volume of ink in the cartridge, since the cost per square metre of a print is a better indicator of value.

The following information is provided as a guide to maximize the efficiency of your Epson Stylus Pro Printer in terms of ink usage. These recommendations will help you to get the maximum yield and value from your ink cartridges, while maintaining the highest level of image quality output.

Always use Epson Genuine branded media.
> These products are optimized for consistently high quality output and trouble free printer operation. The coatings are designed to perfectly coordinate with the printer drivers and get maximum efficiency from the amount of ink laid down.

Carefully consider print resolution.
> Exciting new print head technologies including variable drop technology offer the user of Epson Stylus Pro 7600 and 9600 printers incredible image quality at a variety of resolutions. An image printed at 720 x 720 dpi on the SP 7600 or 9600 printer may look as good as a 1440 x 720 dpi print from the SP 7500 or 9500. 720 dpi images generally use less ink than 1440 dpi images, which, in turn, generally use less ink than 2880 dpi images. Not all media are supported at 2880 dpi in the printer drivers, and ink usage may be reduced at the lower dpi setting. Always carefully consider the size and application of your print, and become familiar with the outstanding quality and speed available at all resolutions.

Only clean when necessary.
> Printer cleaning cycles are a simple and easy way to insure consistent high quality output. The cleaning process however does require the expenditure of ink. Your printer instruction manual provides guidelines on what to look for and when to run this cycle. Many factors can lead to less than optimal output, especially incorrect driver settings. Investigate all possibilities thoroughly prior to automatically running another cleaning.

Power down properly.

If powering down the printer, always do it from the front control panel. This allows the print head to properly position itself in a sealed condition. Do not use an outlet connected to a wall switch, or turn off and on the printer from a surge strip. This may leave the head out of position, which can lead to head drying and other conditions that require frequent head cleaning, thus consuming ink.

Batch your print jobs

One of the unique features of the UltraChrome Ink Epson Stylus Pro 7600 and 9600 printers is the ability to easily switch between Photo Black Ink (intended for photographic papers), and Matte Black Ink (optimized for use with matte and cotton fine art papers). Each of these inks will deliver outstanding D-Max to make prints pop off the page when used with the appropriate media. While this changeover process is user friendly, it does expend ink in the process. To minimize the loss of ink, consider batching your print jobs by media type. This will allow for maximum use of either ink type before requiring an ink changeover process. Batching matte prints versus photo paper will allow you to print with outstanding black density, but without unnecessary ink usage.

For general all purpose usage, or when batching jobs is not practical, Photo Black ink is the best choice (widest range of media support). If swapping ink must occur on a routine basis, please consider purchasing a second printer and tasking one for matte papers, and the other for photo papers.

Check the Epson Website for printer firmware updates

1.) As the printer instruction manual states, neither the ink door nor media release lever should be lifted during the initial prime. On the earliest versions of both the Epson Stylus Pro 7600 and 9600, this unexpected interruption caused an INK OUT condition to be reported for cartridges having considerable ink remaining. Currently shipping printers include a firmware update that allows the initial prime to continue when the handles or covers are moved, eliminating this issue. This update is also available on Epson's web site.

2.) The initial set of ink cartridges may leave more ink in the cartridge after the INK OUT than subsequent sets. This phenomenon occurs only on the initialization and is not representative of subsequent sets of ink, nor is it reflected in the cost per metre foot table.

3.) Epson is continually studying ink usage, and hopes to make firmware and driver updates available for our printers allowing for more accurate calculation of ink usage, enhanced image quality, and improved reliability. Visit the Epson download site http://tech.epson.com.au for the most recent firmware version.

Estimated cost per square metre, in Australian Dollars, for the sample bike image printed on the Epson Stylus® Pro 7600 or 9600 with UltraChrome™ ink

This table last updated on 13/12/02.

Media Setting	Printed Cost / 1sqm 110ml Cartridge	Printed Cost / 1sqm 220ml Cartridge
Premium Luster Photo Paper	$22.88	$20.90
Premium Glossy Photo Paper 250	$29.19	$26.62
Premium Semimatte Photo Paper 250	$24.52	$22.17
Premium Semigloss Photo Paper	$24.58	$22.57
EPSON Proofing Semimatte Paper	$22.44	$20.44
Photo Grade Glossy Paper	$20.31	$18.31
Photo Grade Semigloss Paper	$20.32	$18.31
Glossy Paper - Photo Weight	$30.78	$28.89
Enhanced Matte Paper	$19.03	$16.87
Double Weight Matte Paper	$16.01	$13.89
Smooth Fine Art Paper	$45.89	$43.89
Textured Fine Art Paper	$51.20	$48.94
Watercolor Paper - Radiant White	$26.58	$24.32
Enhanced Synthetic Paper	$20.43	$18.77
Enhanced Adhesive Synthetic Paper	$32.16	$29.90
Adhesive Vinyl	$46.27	$44.01
Canvas	$54.10	$52.23
Backlight Film	$26.61	$24.98

All costs are estimates, based on the above image, printed at 1 square metre media at 720 x 720 dpi, under standard operating temperatures and conditions. Prices used for EPSON UltraChrome ink cartridges & genuine media are estimated street prices (10% off RRP) on the date of the table. Printer firmware versions are BN1928 (for 7600) and BW1928 (for 9600).

The costs in this table are estimates only. Actual ink consumption and cost per square metre will vary based on many factors, such as image printed, frequency of cleaning cycles, frequency of ink cartridge swapping, and frequency of printer use. Yields from the first cartridge used in the printer may be less, as some ink is used for the initial charging of the printing system.

Visit the Epson download site http://tech.epson.com.au for the most recent firmware version.