

EPSON STYLUS PRO 7900/9900 HALFTONE PRINTER DRIVER

The EFI halftone driver for Epson Stylus Pro 7900/9900 is recommended for one-bit output. This article is a step-by-step guide on how to achieve the best dot sharpness from one-bit files and thus attain ISO standard

The printer is available in two different color modes: CMYKcmmk and CMYKOGcmmk. Where necessary, the slight differences between the two modes are explained in the text below.

Check the following at the printer before making the following recommended settings in the steps below:

- Make sure that the current firmware version is installed
- Print a nozzle check to ensure that the printer is in good shape

TO ACHIEVE OPTIMUM OUTPUT QUALITY OF ONE-BIT FILES

1 In EFI XF, open Color Manager and start the tool “Create Base Linearization”.

The Settings window is displayed.

Printer settings

The screenshot shows the following settings in the driver interface:

- Measuring device settings:**
 - Measuring device: Epson SpectroProofer
 - Import Values
 - Linearization will be done automatically
 - Profiling will be done automatically
 - Linearization intent: Proof, Photo/Production
- Printer settings:**
 - Printer: Epson Stylus Pro 9900/9910 (PX-H10000) HT
 - Ink type: Epson UltraChrome HDR
- Media settings:**
 - Media set: Epson Proofing Paper White Semimatte
 - Media: Epson Proofing Paper Semimatte (S041479)
 - Media length correction: Target (inch): 20.00, Actual (inch): 20.00
- Output settings:**
 - Resolution: 1440 x 1440
 - Print mode: Super
 - Print direction: Unidirectional
 - Halftoning: Error diffusion (SE1)
 - Color mode: CMYKcmmk
 - Dot Size: [empty]
 - Screening: [empty]

2 For the measuring device, select “Epson SpectroProofer”.

3 For the linearization intent, select “Proof”.

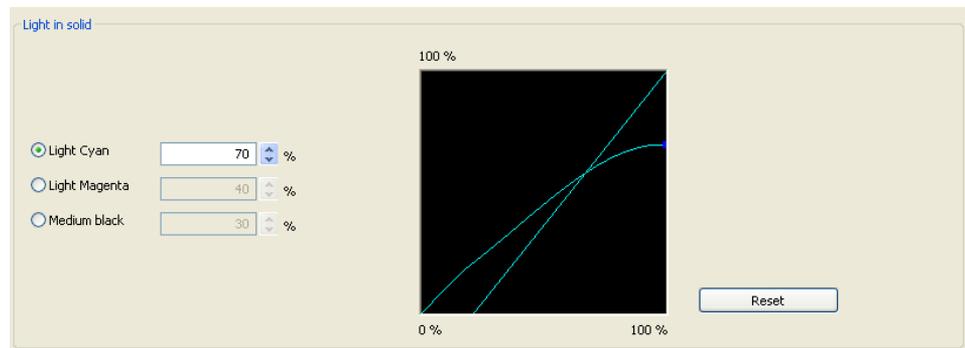
- 4 For the media, select “Epson Proofing Paper White Semimatt”.
- 5 Select or define a media name.
- 6 For the output settings, select the resolution “1440 x 1440”, the print mode “Super”, the print direction “Unidirectional” and the halftoning mode “Error diffusion (SE1)”.

The color mode is automatically set to “CMYKcmkk”. However, if your printer supports OG, you must select “CMYKOGcmkk” from the drop-down list box.

- 7 Click **Advanced**.

The window for making light in solid settings is displayed.

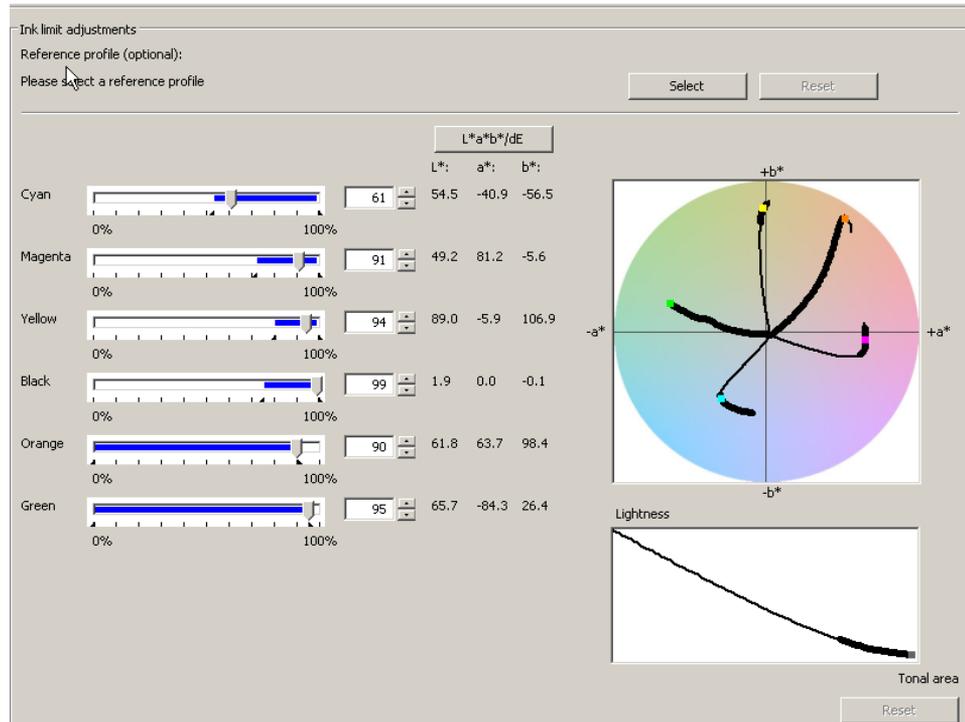
Light in solid settings



- 8 Select a high percentage of light ink.
A high proportion of light ink ensures excellent sharpness of dots.
- 9 Click **OK** to close the **Advanced** window.
- 10 Click **Next** and follow the on-screen instructions to print and measure the chart.
- 11 Click **Next** to open the next window.

12 Click Advanced.

The window for making ink limit adjustments per channel is displayed.

Ink limit adjustments per channel**13 For the reference profile, select "ISOcoated_v2_eci.icc".****14 Move the slider bars to the following L* values:**

Cyan = approx. 47

Magenta = approx. 48

Yellow = approx. 89

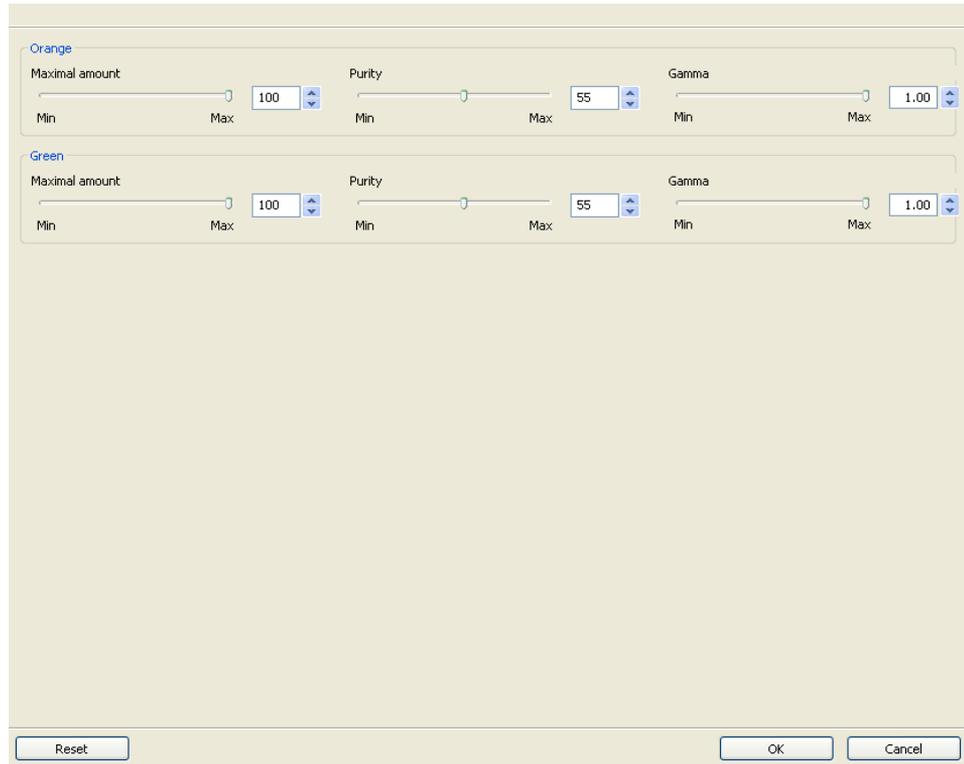
Black = approx. 90

15 Click OK to close the Advanced window.**16 Continue to follow the on-screen instructions to create a media profile.**

17 For CMYKOGcmkk printers only: In the Settings window, click Advanced.

The window for defining how OG inks will be added to CMY inks is displayed.

Adding OG to CMYK inks

**18 Set the "Purity" setting for the OG inks to approximately 55%.**

Tests have shown that the best results are achieved using a value of approximately 55%.

Summary

To achieve the best results, check and clean the nozzles and, if possible, print some files to ensure the consistency of the printer's color reproduction before creating a media profile.

Following the above procedure, we attained for the first profile an average delta E of approx. 1.6 and a maximum delta E of approx. 5. These results could be greatly improved by optimizing the profile afterward.

EFI linearization report

