



Digital Press Certification Application Data Sheet

Ricoh Pro C9100/C9110

Note: Certification is in accordance with IDEAlliance Digital Press Certification Program v2.2

The IDEAlliance Print Properties Digital Print Working Group has established a certification process for digital production presses (xerographic/inkjet). The following information is intended to assist printers and customers in understanding the printing conditions and how they were achieved and/or to replicate these results on a similar system.

I. Manufacturer

Electronics for Imaging
6750 Dumbarton Circle
Fremont, CA 94555

II. Product Name

Ricoh Pro C9100, C9110 / Fiery E-43 and Fiery E-83 / Fiery FS150 Pro / EFI Laser Proof Paper
XF130 Semimatt 130 gsm

III. Overview

Flexible and scalable Fiery servers integrate into any print environment, deliver high performance, image with industry standard precision, and produce accurate color for all environments.

- Deliver professional color and consistency from anyone.
- Color Profiler Suite option provides tools and features to match press standards and monitor colorimetric conformance.
- Decreases set-up time, reduces errors, and costly reprints dramatically.
- Provides high return of investment with a flexible, scalable product line.
- Integrates into all print environments because of its open platform technology.
- Supports variable data printing.

IV. System Components and Printing Procedure

DFE:	Fiery E-43 Fiery E-83
Software:	Fiery Command WorkStation 5.5 Fiery Color Profiler Suite 4.5 X-Rite ColorPort
Measurement:	EFI ES-2000 Spectrophotometer Eye-one iSis XL
Printer:	Ricoh Pro C9100, C9110
Paper:	EFI Laser Proof Paper XF130 Semimatt 130 gsm

Warm-up printer and perform calibration processes

The printer should first be in a warmed-up by printing at least 30 full coverage sheets.

Use of EFI ES-2000 Spectrophotometer is recommended for Fiery calibration. Go to Device Center : General : Tools : Calibrate : Preferences to check that the following properties are set:

- Measurement method : EFI ES-2000
- Patch layout : 51 Unsorted Patches

Next, choose Calibrate : Manage calibration settings. To create a new calibration set, click “Create New...”, and choose “Coated-Matte” as the basis for the settings. Set Name and Recommend Paper for the new calibration set, being sure to set the following job properties:

- Job Info : Copies : 5
- Media : Paper size : 12x18
- Media : Paper type : Coated - matte
- Media : Paper weight : Paper weight 4 (105.1 – 163.0 g/m²)
- Image : Halftone mode : 200 dot + fine text

Measure the last calibration sheet that is printed. Save the newly created calibration set, and (placeholder) output profile based off any of the factory profiles. A new custom profile will be created using the calibration setting associated with this profile.

Create an output profile

The following print properties are used to capture the printer’s linearized state for creating an ICC profile. Any other settings should be set to the server’s factory defaults with the exception of media tray settings. Print the Digital Press Form 1 PDF bypassing color conversion.

- Media : Paper size : 12x18
- Media : Paper type : Coated - glossy
- Media : Paper weight : Paper weight 4 (105.1 – 163.0 g/m²)
- Image : Halftone mode : 200 dot + fine text
- Color : Expert Settings : Color Input : CMYK/Grayscale : Bypass conversion
- Color : Expert Settings : Gray & Black Processing: Gray : CMYK : Off
- Color : Expert Settings : Gray & Black Processing : Black : Black text and graphics : Normal
- Color : Expert Settings : Output : *[Newly created placeholder output profile name]*

Next measure the IT8.7/4 section of two press form swith ColorPort, using an Eye-one iSis XL, including UV measurements (M0 mode). Save each measurement in the CGATS format, conversion none (XRGa).

Note: While Fiery Color Profiler Suite recognizes this measurement file format, the line with "DEVCALSTD XRGa" present in certain measurement file headers should be commented out or deleted. This allows the ColorPort measurement file to conform to the CGATS file specification and be successfully read by Fiery Color Profiler Suite.

Create a printer profile with Fiery Color Profiler Suite. Skip to the "Convert Measurements to Profile" module. Select the Import settings option, and select the "Generic CMYK" profile preset. Change the following profile settings:

Edit Black Controls : Black Start : 5%

Edit Black Controls : Black Generation : 90%

Save the new output profile to the server or as a local file to import later.

Important : Associate this output profile with the newly created calibration set when importing into Command WorkStation.

If difficulties meeting the colorimetric tolerances of Section 2.2 are encountered, it is recommended that a press technician be consulted to ensure the press is performing in peak condition, increasing toner mass can increase the press's gamut. Re-create an ICC profile from new measurements if press service has been preformed.

Print the Digital Press Forms

Use the following set of print properties as a baseline for printing the press forms. There are individual exceptions for some of the press forms that will be noted.

- Media : Paper size : 12x18
- Media : Paper type : Coated - glossy
- Media : Paper weight : Paper weight 4 (105.1 – 163.0 g/m2)
- Image : Halftone mode : 200 dot + fine text
- Color : Expert Settings : Color Input : CMYK/Grayscale : GRACoL2006 Coated1 (EFI)
- Color : Expert Settings : Color Input : CMYK/Grayscale : Processing method : Full (Output GCR)
- Color : Expert Settings : Color Input : CMYK/Grayscale : Paper simulation : On
- Color : Expert Settings : Gray & Black Processing: Gray : CMYK : Off
- Color : Expert Settings : Gray & Black Processing : Black : Black text and graphics : Normal
- Color : Expert Settings : Output : *[newly created output profile]*

For Digital Press Form 3 (Section 2.5), it is advised to recalibrate the engine using Fiery Calibrator prior to the 1-hour and 24-hour test prints depending on the amount of printer usage.

For Digital Press Form 4 (Section 2.6), turn on Black overprint.

- Color : Expert Settings : Gray & Black Processing : Black : Black text and graphics : Pure Black On
- Color : Expert Settings : Gray & Black Processing : Black : Black overprint : Text/Graphics

For Digital Press Form 6 (Section 2.8, 2.9, 2.10) turn off color processing.

- Color : Expert Settings : Color Input : CMYK/Grayscale : ColorWise OFF

V. Finishing Procedures (Optional)

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VI. Additional Data (Optional)

Users can also achieve this match using Color Profiler Suite (CPS) with EFI ES-2000. Launch CPS and select Create Profile Printer Module. Select "Print Patches". Specify 1617 random (CGATS IT8.7/4) patch set. Select "Use Current Calibration", under Print Patches : Expert Settings. Set Print Properties as specified in the "Create an output profile" section above. Measure patches with the EFI ES-2000 as directed by the Fiery Printer Profiler. Import Settings from the server or use Generic CMYK and custom settings as necessary.

Device Linker "Match to a Standard" iterative profile enhancement can be used to refine color match precision if desired.