



Proofing Solutions

WITH BEST TECHNOLOGY

SWOP® Application Data Sheet



EFI® Proofing solutions using EPSON Stylus Pro 7600/9600 and EFI 9180 Semimatt Proofing Paper

The SWOP® Review Committee has approved the use of off-press proofs as input material to publications. SWOP® Specifications recommend that: “the appearance of an off-press proof must closely simulate a SWOP® press proof.”

1. Manufacturer: EFI, Proofing Solutions (Best GmbH)

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www.proofingsolutions.efi.com

2. Product: EFI® Colorproof XF™ or EFI Screenproof XF™ or EFI Designer Edition™ 4.0 or EFI Photo Edition™ 4.0 with EPSON® Stylus Pro 7600/9600 Proofing System consisting of:

EFI Colorproof XF™ RIP or EFI Screenproof XF™ RIP or EFI Designer Edition™ RIP or EFI Photo Edition™ RIP
EPSON Stylus Pro 7600/9600 with UltraChrome™ inks
EFI 9180 (9150) Semimatt Proofing paper

3. Introduction

The EFI Colorproof XF (or Screenproof XF, composite “Colorproof” mode, or EFI Designer Edition or EFI Photo Edition) software combined with the Epson Stylus Pro 7600/9600 is a non-half-tone direct digital color proofing system. This combination provides a continuous tone proof that meets the color requirements for SWOP proofing when produced in accordance with these instructions and meeting the characterizations stated below.

The following information is intended to assist producers and consumers in the use of the EFI Colorproof XF with the EPSON Stylus Pro 7600/9600 system in a SWOP proofing application. The EFI Colorproof XF proof must be made according to all of the following guidelines.

4. Control Guide

SWOP specifies that a control guide such as the GATF/SWOP Proofing Bar or other suitable guides that meet these requirements be supplied on every off-press proof. As a minimum, this guide should contain solids of the primaries and two color overprints, as well as a 75%, 50% and 25% tint of each of the process colors. Any color bar should be checked for accuracy of the original values. Use and interpretation of such a bar is the responsibility of the user.

In following the EFI Colorproof XF calibrated workflow below, all proofs must be printed with the EFI Colorproof XF “Color Control Strip for SWOP”.

5. System Components/Set Up Conditions

- ✓ EFI Colorproof XF (Screenproof XF, Designer Edition, Photo Edition) windows software version XF or higher (for Designer Edition and Photo Edition 4.0 or higher)
- ✓ EPSON Stylus Pro 7600/9600 with UltraChrome Inks from EPSON America
- ✓ EFI Semimatt Proofing paper, 9180 (9150)
- ✓ EFI Colorproof Calibrated Workflow*

** To ensure color quality and consistency EFI, Proofing Solutions specifies that the EFI Colorproof XF for EPSON Stylus Pro 7600/9600 must be created in a workflow where calibration procedures are followed.*

Select EFI Colorproof Paper Profile for

- ✓ EFI Remoteproof Paper 9180 Semimatt at 720*720 var,
(available at www.proofingsolutions.efi.com)
 - Review the EFI Colorproof XF manual for details on selecting a profile.
 - This profile also contains connection a base linearization file. This is the correct base linearization file for this system and has to be used.
 - The measurements for this Paper Profile were taken using a GretagMacbeth Eye One spectrophotometer. The measurements were CIE L*a*b* with D50 illumination and a 2° observer, without UV cutoff filter.

Select EFI Colorproof Reference profile
(Best_SWOP_Ref_Presssheet_2003.icc):

(available at www.proofingsolutions.efi.com)

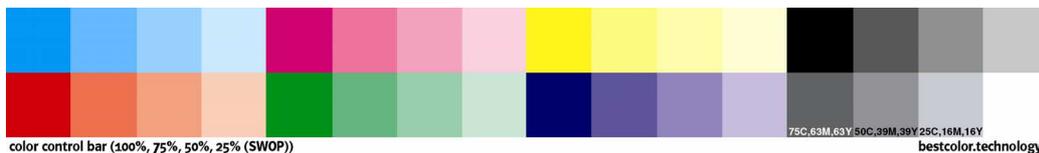
- Review the EFI Colorproof manual for details on selecting a profile.
- This Reference Profile was generated using information from the profiling target on the SWOP press proof supplied with the SWOP certification kit using a GretagMacbeth Eye One spectrophotometer. The measurements were CIE L*a*b* with D50 illumination and a 2° observer, without UV cutoff filter.

Follow the EFI Colorproof XF printer linearization procedure which consists of the following steps:

- Print the total ink limit target and follow the instructions the manual.
- Measure the Target using spectrophotometer as prescribed in the manual.
- Print the ink limit per channel target as prescribed in the manual.
- Measure the Target using spectrophotometer as prescribed in the manual.
- Print the linearization target as prescribed in the manual.
- Measure the Target using spectrophotometer as prescribed in the manual.
- Print the quality control target as prescribed in the manual.
- Measure the Target using spectrophotometer as prescribed in the manual.
- Create Printer Linearization: EFI Colorproof XF automatically corrects for variations of the printers based on the measurement information supplied by the linearization target. This procedure creates an updated SWOP base linearization.

6. Finished Proof Characteristics

All certified proofs must display the Colorproof Control Strip



7. Finished Proof Characteristics

A properly made proof with:

EFI Colorproof XF™ (Screenproof™, Designer Edition™, Photo Edition™)

EPSON Stylus Pro 7600/9600

EPSON UltraChrome Inks

EFI 9180 (9150) Proofing Paper

must have the following characteristics in order to be considered a valid Certified SWOP proof.

Color	Density	TVI (Dot Gain 50%)	Print Contrast (At 75% Tone Value)	L*	Color (Per GATS.5) C*	h(ab)*
Cyan	1.15	17.6	32.0	58.4	54.4	224.6
Magenta	1.36	17.1	38.2	48.1	69.8	1.27
Yellow	0.84	15.4	22.6	88.0	80.0	94.5
Black	1.38	20.4	34.8	23.7	6.0	77.5
Red	n/a	n/a	n/a	48.7	78.5	34.4
Green	n/a	n/a	n/a	54.5	67.1	154.4
Blue	n/a	n/a	n/a	27.10	46.8	296.1
Tolerance	+/- 0.05	+/- 2.0	+/- 4.0	-	-	-

Substrate Density (+/-0.02)

Cyan = 0.08, Magenta = 0.10, Yellow = 0.15

Substrate CIELab (+/- 0.5)

L* = 91.5, a* = 0.8, b* = 7.8

Delta E must be less than or equal to 3.0.

These measurements above were made by using a calibrated X- Rite DTP22 Swatchbook Spectrodensitometer, non- polarized. Colorimetric measurements were done under D50 Illuminant, 2° observer, non-polarized and X-Rite Colorshop. All density measurements are Status T absolute and colorimetric values are absolute and measured with a selfbacking. Tonal Value Increase values (dot gain) were calculated using the Murray- Davies equation per CGATS 4.

8. Sample Proofs

EFI has supplied two sets of EFI Colorproof XF proofs from the EPSON Stylus Pro 7600/9600, which conform to this Application Data Sheet to the SWOP® Review Committee for certification and retention.

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