



Proofing Solutions
WITH BEST TECHNOLOGY

SWOP® Application Data Sheet

EFI® Proofing solutions using HP 30n / 130n and HP Proofing Semi Gloss 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
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2. Product: EFI® Colorproof XF™ or EFI Screenproof XF™ or EFI Designer Edition™
4.0 or EFI Photo Edition™ 4.0
with HP® Designjet 30n/130n
Proofing System consisting of:

EFI Colorproof XF™ RIP or EFI Screenproof XF™ RIP or EFI Designer
Edition™ RIP or EFI Photo Edition™ RIP
HP Designjet 30n/130n
HP Proofing Semi Gloss paper (C7884A)

3. Introduction

The EFI Colorproof XF (or Screenproof XF, composite "Colorproof" mode, or EFI Designer Edition or EFI Photo Edition) software combined with the HP Designjet 30n/130n 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 HP Designjet 30n/130n 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 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)
- ✓ HP Designjet 30n/130n and inks from HP
- ✓ HP Proofing Semi Gloss paper (C7884A)
- ✓ EFI Colorproof Calibrated Workflow*

** To ensure color quality and consistency EFI specifies that the EFI Colorproof XF for HP Designjet 30n/130n must be created in a workflow where calibration procedures are followed.*

Select EFI Colorproof Paper Profile for

HP Proofing Semi Gloss paper at 600*1200,

(available at <http://www.bestcolor.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
(EFI_SWOP_Ref_Presssheet_2003.icc):

(available at <http://www.bestcolor.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 from 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™)

HP Designjet 30n/130n

HP Proofing Semi Gloss 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)°	ΔE*(L*a*b*)
Cyan	1.28	19.0	33.0	57.48	56.9	227.2	
Magenta	1.42	20.0	35.0	48.0	72.6	359.4	
Yellow	0.87	16.9	26.4	85.3	78.3	91.97	
Black	1.54	18.8	38.0	19.7	2.35	n/a	
Red	n/a	n/a	n/a	46.3	77.1	32.5	
Green	n/a	n/a	n/a	52.7	68.5	156.7	
Blue	n/a	n/a	n/a	24.8	48.9	296.9	
Tolerance	+/- 0.05	+/- 2.0	+/- 4.0	-	-	-	3.0

Substrate Density (+/-0.02)

Cyan = 0.11, Magenta = 0.13, Yellow = 0.16

Substrate CIELab (+/- 0.5)

L* = 90.9, a* = 1.61, b* = 4.25

Delta E(L*a*b*) values represent within material color difference measured at target density.

These measurements above were made using a calibrated X-Rite 938 Spectrodensitometer, non-polarized. Colorimetric measurements were done under D50 Illuminant, 2° observer, non-polarized. All density measurements are Status T absolute and colorimetric values are absolute and measured with a black backing. Tonal Value Increase values (dot gain) were calculated using the Murray-Davies equation per CGATS.4.

8. Sample Proofs

EFI has supplied two EFI Colorproof XF proofs from the HP Designjet 30n/130n, which conform to this Application Data Sheet to the SWOP Review Committee for certification and retention.

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