

SWOP® Off-Press Proof Application Data Sheet

Matchprint ProofPro RIP

with Epson 9600/7600 Inkjet Printer

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 used in this application must closely simulate a SWOP Certified Press Proof." See other explanations and recommendations as outlined on pages 21 and 47 of the 2001 edition of the SWOP specifications.

I. Manufacturer

Kodak Polychrome Graphics
401 Merritt 7, 3rd Floor
Norwalk, CT 06851



II. Product

Kodak Polychrome Graphics Matchprint ProofPro RIP with Epson 9600/7600 inkjet printer

III. Introduction

The history of Matchprint proofing products designed to meet the needs of the printing industry began in the 1960's when proofing films were introduced. Throughout this time, we have viewed color reproduction as a process rather than a series of independent events. We base this on the premise that an advertiser's major commitment to expense and image is determined at the print production site. For this reason, a proof, when made to the following guidelines, is intended to simulate the characteristics of a production press operating within the SWOP guidelines for production printing.

IV. Control Guide

SWOP specifies that a control guide such as a GATF/SWOP Proofing Bar be supplied on every off-press proof. As a minimum, this guide should contain solids for the primary process colors and two-color overprints, as well as a 25%, 50%, and 75% tint in each of the process colors. A control guide containing these imaging characteristics must be present on every proof. All control guides should be checked for accuracy of the original values. Use and interpretation of a control guide is the responsibility of the user.

V. System Components

Hardware:

- Epson Stylus Pro 7600/9600 inkjet printer with UltraChrome Photo ink
- Matchprint ProofPro Inkjet Media Publication/Pigment
- X-Rite AutoScan Spectrophotometer DTP-41 or equivalent.

Software:

- Matchprint ProofPro RIP

Setup and Protocol:

Refer to the Matchprint ProofPro User's Guide for the following procedures:

Reference Profile = US_Web_SWOP_05.icc

Paper Profiles to be used:

In MPPP RIP v1.0 with an Epson Stylus Pro 7600 use: EPSP7600_1440x720_EPUCPotoK_MPPPPigmentPub_vMPPP10r1.icc

In MPPP RIP v1.0 with an Epson Stylus Pro 9600 use: EPSP9600_1440x720_EPUCPotoK_MPPPPigmentPub_vMPPP10r1.icc

In MPPP RIP v2.0 with an Epson Stylus Pro 7600 use: K_13_3E5A_8J001_011_XRD41_1.icc

In MPPP RIP v2.0 with an Epson Stylus Pro 9600 use: K_13_3G5A_8J001_011_XRD41_1.icc

Rendering Intent = Perceptual

Set Kodak Polychrome Graphics CFM to Black Generation: Retain Integrity if CMYK to CMYK is left unchecked, use GCR; Total ink: = 310; Black Ink Limit = 100; Black Generation = Custom – Custom Chart Adjuster = 95.

Calibrate the Epson Stylus Pro 7600/9600 for use with Matchprint ProofPro Inkjet Media Publication/Pigment paper utilizing one of the following files:

In MPPP RIP v1.0 with an Epson Stylus Pro 7600 use: EPSP7600_1440x720_EPUCPotoK_MPPPPigmentPub_vMPPP10r1.bpl

In MPPP RIP v1.0 with an Epson Stylus Pro 9600 use: EPSP9600_1440x720_EPUCPotoK_MPPPPigmentPub_vMPPP10r1.bpl

In MPPP RIP v2.0 with an Epson Stylus Pro 7600 use: K_13_3E5A_8J001_011_XRD41_1.epl

In MPPP RIP v2.0 with an Epson Stylus Pro 9600 use: K_13_3G5A_8J001_011_XRD41_1.epl

VI. Finishing Procedures

Not applicable.

VII. Finished Proof Characteristics

A properly made proof should have the following color characteristics:

| Color | Density Absolute | TVI @ 50% (Dot Gain) (± 3.0) | Print Contrast @ 75% Tone (± 4.0) | Color (per CGATS.5)* h(ab)* | | | | Maximum ΔE_{ab}^* | |
|--------------------------|--|------------------------------|-----------------------------------|--------------------------------|-------|--------|--------|---------------------------|-----|
| | | | | L* | C* | a* | b* | | |
| Background/ Substrate | For Background Density, see table below. | | | 91.25 | 2.90 | 89 | .07 | 2.90 | n/a |
| Yellow | .96 (± 0.04) | 21 | 25 | 86.14 | 83.34 | 93.7 | -5.35 | 83.0 | 4 |
| Magenta | 1.37 (± 0.06) | 23 | 33 | 47.29 | 68.88 | 359.0 | 68.75 | -65 | 4 |
| Cyan | 1.19 (± 0.04) | 23 | 29 | 58.57 | 56.68 | 226.35 | -39.25 | -41.0 | 4 |
| Black | 1.50 (± 0.04) | 25 | 37 | 20.50 | 1.74 | 54.5 | 1.04 | 1.40 | 5 |
| Red (overprint) | n/a | n/a | n/a | 47.32 | 75.25 | 32.60 | 63.45 | 40.60 | 4 |
| Green (op) | n/a | n/a | n/a | 52.95 | 68.38 | 155.00 | -61.80 | 28.80 | 4 |
| Blue (op) | n/a | n/a | n/a | 25.28 | 46.50 | 295.00 | 19.90 | -41.80 | 4 |

*CIELCh values represent measurements at target density.

The following supplemental colorimetric data is supplied for reference only.

| Area | Filter/Channel Density (absolute) | | | CIE Lab Values | | |
|--------------------------|-----------------------------------|-----------|----------|----------------|-------|------|
| | Red (C) | Green (M) | Blue (Y) | L* | a* | b* |
| Background/ Substrate | .10 | .10 | .10 | 91.25 | .07 | 2.90 |
| Black 25% | 34 | 34 | 35 | 72.52 | -.50 | 1.58 |
| Gray 25% | 35 | 34 | 34 | 72.25 | -.30 | .85 |
| Black 50% | 65 | 65 | 65 | 54.36 | -.40 | -.09 |
| Gray 50% | 66 | 66 | 67 | 53.30 | .35 | .25 |
| Black 75% | 92 | 92 | 93 | 40.4 | -.44 | .23 |
| Gray 75% | 96 | 95 | 96 | 39.20 | -1.10 | .75 |

*Three color grays made up of Cyan, Magenta, Yellow: 75, 64, 64; 50, 39, 39; and 25, 16, 16 values.

Note: All measurements were made using a calibrated Gretag™ SPM50 spectrophotometer (D50 illuminant, 2° observer, non-polarized). The density (Status T) and colorimetric values are absolute, base included, measured over a black backup. TVI's were calculated using the Murray-Davies equation (CGATS.4). All tolerances reflect normal systems variability and assume the use of a calibrated measurement device.

To establish comparison values for finished proofs and determine any offset in instrumentation used, measure each pair of ink reference patches from a current SWOP Ink Hi-Lo Color Reference. Compare them to the values shown in the table above for each color. The SWOP Hi-Lo Color Reference used to calculate the offset values had a December 2002 expiration date.

VIII. Sample Proofs

Kodak Polychrome Graphics has supplied two proofs that conform to this Application Data Sheet to SWOP for their analysis and retention.

CALL TOLL-FREE **1-877-KPGraphics** (1-877-574-7274) FOR ADDITIONAL INFORMATION

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