

# SWOP® Application Data Sheet



## GMG ColorProof Off-Press Proofing System – Epson® 4800/7800/9800 using Ultrachrome K3™ inks and GMG ProofPaper semimatte

### I. MANUFACTURER

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Certified - August 2005

### II. PRODUCT

The GMG ColorProof Off-Press Proofing System consists of the GMG ColorProof Software, Epson Stylus Pro 4800 or Epson Stylus Pro 7800 or Epson Stylus Pro 9800 Large format printers with Epson Ultrachrome K3 Inks and GMG ProofPaper semimatte 250g.

### III. INTRODUCTION

The GMG ColorProof color management software combined with the Epson 4800/7800/9800 ink jet printing devices provides a continuous tone, contract quality, proofing system.

The GMG ColorProof software includes four main components that are part of the standard software package:

- GMG ColorProof with 4-D GMG color engine
- GMG Profile Editor
- GMG RIP Server for PDF and Postscript®
- GMG Spotcolor Editor

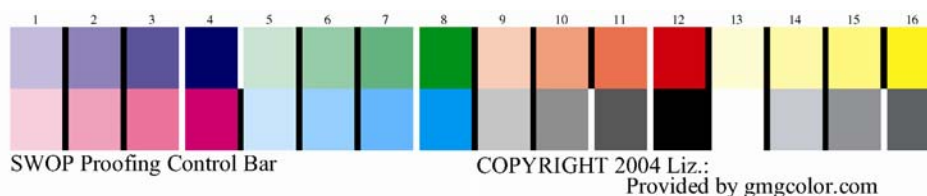
The GMG ColorProof software can drive up to three devices in parallel without any quality or performance compromise. All connected printers will meet the color requirements for SWOP® compliant proofing.

The GMG ColorProof system can also output screened 1-Bit Tiff files as continuous tone proof. These off-press proofs meet the requirements of the SWOP® proofing standards.

### IV. CONTROL GUIDE

SWOP® proofing specifications recommend that a control guide such as the SWOP Proofing Guide be included on every off-press proof.

GMG recommends usage of the SWOP Proofing Bar to check conformance to the specifications.



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The use of a control guide is within the responsibility of the end user.

### V. SYSTEM COMPONENTS AND CALIBRATION

The following GMG ColorProof components and calibration procedures must be used to achieve conformance with this specification:

- GMG ColorProof Off-Press Proofing System Components
  - GMG ColorProof Software 4.1 or later
  - Epson Stylus Pro 4800 or Epson Stylus Pro 7800 or Epson Stylus Pro 9800 with Epson Ultrachrome K3 Inks
  - GMG GMG ProofPaper semimatte 250g

- Printer Calibration Procedure

To meet SWOP standards, the Epson Stylus Pro printers must be calibrated by using the GMG ColorProof printer calibration procedure and calibration.

*Once calibrated, the following  $\Delta E_{ab}^*$  will be achieved:*

- *Average  $\Delta E_{ab}^*$  must be below 0.75*
  - *Maximum allowed  $\Delta E_{ab}^*$  must be below 2.5*
- Color Matching Profile
    - SWOP(R)\_E48-78-98\_GMGsemimatte250\_V1.mx4\*
  - Digital Proof control Strips

All proofs created with GMG ColorProof must contain a proofing bar to verify conformance as described under *IV. Control Guide*.

\* All calibration and profile files are available on the GMG ColorProof software CD-ROM.

### VI. FINISHING PROCEDURES

By using the GMG ColorProof off-press proofing system, described in this ADS, no finishing procedures are required.

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### VII. FINISHED PROOF CHARACTERISTICS

When properly processed the following values should be obtained from the GMG ColorProof Off-Press Proofing System on the SWOP proofing control bar:

| Patch Name | C   | M   | Y   | K   | Target CIE L* a* b* |        |        |
|------------|-----|-----|-----|-----|---------------------|--------|--------|
| A1         | 025 | 025 | 000 | 000 | 70.27               | 7.33   | -9.95  |
| A2         | 050 | 050 | 000 | 000 | 51.87               | 13.00  | -21.46 |
| A3         | 075 | 075 | 000 | 000 | 35.85               | 16.56  | -31.38 |
| A4         | 100 | 100 | 000 | 000 | 25.07               | 18.26  | -39.94 |
| A5         | 025 | 000 | 025 | 000 | 79.89               | -13.06 | 10.66  |
| A6         | 050 | 000 | 050 | 000 | 69.25               | -27.32 | 15.49  |
| A7         | 075 | 000 | 075 | 000 | 59.55               | -42.79 | 22.34  |
| A8         | 100 | 000 | 100 | 000 | 50.90               | -63.43 | 26.95  |
| A9         | 000 | 025 | 025 | 000 | 77.02               | 16.74  | 17.33  |
| A10        | 000 | 050 | 050 | 000 | 65.24               | 32.02  | 28.40  |
| A11        | 000 | 075 | 075 | 000 | 55.05               | 49.08  | 39.99  |
| A12        | 000 | 100 | 100 | 000 | 47.22               | 65.10  | 46.07  |
| A13        | 000 | 000 | 025 | 000 | 89.86               | -1.20  | 24.26  |
| A14        | 000 | 000 | 050 | 000 | 88.65               | -2.99  | 41.55  |
| A15        | 000 | 000 | 075 | 000 | 87.26               | -3.12  | 60.13  |
| A16        | 000 | 000 | 100 | 000 | 86.02               | -2.95  | 82.16  |
| B1         | 000 | 025 | 000 | 000 | 77.84               | 17.98  | 0.83   |
| B2         | 000 | 050 | 000 | 000 | 66.10               | 35.21  | -1.23  |
| B3         | 000 | 075 | 000 | 000 | 55.68               | 52.45  | -0.20  |
| B4         | 000 | 100 | 000 | 000 | 46.05               | 70.67  | 1.77   |
| B5         | 025 | 000 | 000 | 000 | 80.90               | -10.61 | -7.31  |
| B6         | 050 | 000 | 000 | 000 | 72.03               | -20.79 | -20.13 |
| B7         | 075 | 000 | 000 | 000 | 62.87               | -30.46 | -31.50 |
| B8         | 100 | 000 | 000 | 000 | 55.42               | -40.26 | -40.68 |
| B9         | 000 | 000 | 000 | 025 | 74.24               | 0.67   | 4.44   |
| B10        | 000 | 000 | 000 | 050 | 56.62               | -0.06  | 2.32   |
| B11        | 000 | 000 | 000 | 075 | 40.84               | -0.05  | 1.33   |
| B12        | 000 | 000 | 000 | 100 | 20.64               | 0.96   | 2.40   |
| B13        | 000 | 000 | 000 | 000 | 90.69               | 0.99   | 6.79   |
| B14        | 025 | 016 | 016 | 000 | 73.33               | -0.36  | 1.58   |
| B15        | 050 | 039 | 039 | 000 | 54.11               | 0.92   | 1.12   |
| B16        | 075 | 063 | 063 | 000 | 40.09               | -2.51  | 1.29   |

For contract proof quality the above target values need to be within following tolerances

Printing substrate  $\Delta E_{ab}^* < 3$ ; Mean  $\Delta E_{ab}^* < 4$ ; Max  $\Delta E_{ab}^* < 10$ ; Primary colors  $\Delta E_{ab}^* < 5$

### VII. Measurement Requirements

The following spectrophotometric measurement rules should be followed. All measurements were made with a Gretag Macbeth EyeOne (45/0° geometry, D50 illuminant, 2° observer angle, no filter). Self-backing procedures were followed. The backing sheets should be within 1.0  $\Delta E_{ab}^*$  of each other and the imaged substrate. (According to CGATS 5).



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### VIII. SAMPLE PROOF

GMG GmbH & Co KG has supplied two sets of proofs, made with the GMG ColorProof system, which conform to this SWOP® Application Data Sheet. These have been submitted to SWOP Inc. for their analysis and retention.