SWOP® Off-Press Proof Application Data Sheet

Matchprint Inkjet Proofer 5x42/5x60
Matchprint Color RIP Software

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 Ninth Edition of the SWOP Specifications for Web Offset Publications.

The following information is intended to assist producers and consumers in the use of proofing materials in a SWOP proofing application.

I. Manufacturer
   Kodak Polychrome Graphics
   401 Merritt 7
   Norwalk, CT  06851

II. Product
    Kodak Polychrome Graphics Matchprint Inkjet Proofer 5X42/5X60/Matchprint Color RIP Software

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 Matchprint Inkjet Proofer 5X42/5X60/Matchprint Color RIP Software 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 133-linescreen ruling of 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
    For a Matchprint Inkjet proof to be considered a “SWOP” proof, the following components must be used:
    • Matchprint Inkjet Proofer 5042/60 or 5542/60.
    • Matchprint Color RIP Software version 2.5 or higher.
    • Matchprint Inkjet Commercial Base.
    • Color target: US Web SWOP

Printer Profile MP5042_MP_Com_600_010802.icc, or MP5060_MP_Com_600_010802.icc, or MP5542_MP_Com_600_010802.icc, or MP5560_MP_Com_600_010802.icc and colormetric-absolute rendering intent.

Refer to the Matchprint Color RIP Software User’s Guide to calibrate the Matchprint Inkjet Proofer.
VI. Finishing Procedures

There are no additional steps required for finishing the proof.

VII. Finished Proof Characteristics

When properly produced, the following characteristics are to be expected from a proof made from a Matchprint Inkjet Proofer 5X42/5X60 using Matchprint Color RIP Software.

<table>
<thead>
<tr>
<th>Color</th>
<th>Density Absolute</th>
<th>Density Offset Factor</th>
<th>TVI @ 50% (Dot Gain) ± 3</th>
<th>Print Contrast@ 75% Tone ±2</th>
<th>Color (per CGATS.5)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>0.91(± 0.03)</td>
<td>- 0.08</td>
<td>17</td>
<td>26%</td>
<td>86.1, 81.2, 92.9</td>
</tr>
<tr>
<td>Magenta</td>
<td>1.33(± 0.03)</td>
<td>- 0.05</td>
<td>22</td>
<td>37%</td>
<td>47.8, 69.9, 358.6</td>
</tr>
<tr>
<td>Cyan</td>
<td>1.35(±0.03)</td>
<td>+ 0.07</td>
<td>23</td>
<td>32%</td>
<td>54.2, 54.8, 227.2</td>
</tr>
<tr>
<td>Black</td>
<td>1.76(±0.03)</td>
<td>+ 0.17</td>
<td>25</td>
<td>40%</td>
<td>13.8, 4.6, -</td>
</tr>
<tr>
<td>Red</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.5, 79.1, 34</td>
</tr>
<tr>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>49.5, 67.2, 159</td>
</tr>
<tr>
<td>Blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.1, 50.2, 305.2</td>
</tr>
</tbody>
</table>

Background Density (+/-0.02): Dc = 0.10, Dm = 0.10, Dy = 0.12

*CIELCh values represent measurements at target density.

Note: All measurements were made using a calibrated Gretag™ SPM 50 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, the centerpoints must be calculated for each pair of ink reference patches from a current SWOP Ink Hi-Lo Color Reference. Each centerpoint value is then corrected by applying the offset factor 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.

Example: If the density of the yellow reference “low” patch is 0.92, and the density of the yellow reference “high” patch is 1.07, the centerpoint is 1.00. The table shows that the density offset factor for yellow is -0.08. When this factor is added to the centerpoint, the value becomes .92. With a +/- of 0.03 density, the total density range for yellow, using this example, would be 0.89 to 0.95.

VIII. Sample Proofs

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