



IDEAlliance® Off-Press Proof Application Data Sheet

GMG ColorProof HP Z3200 using GMG ProofPaper semimatte 250 for SWOP #5

The IDEAlliance Print Properties Working Group has established a certification process for off-press proofs as input material to publications. In accordance with this process: “The appearance of a hard copy or soft proof used in this application must have the ability to closely match specific CGATS or other documented characterization data sets within outlined tolerances. See further explanations and recommendations on www.swop.org or www.gracol.org.

The following information is intended to assist producers and consumers in using proofing materials specified by the vendor in an off-press proof application:

I. Manufacturer

GMG Americas
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Certified 10/10/08

II. Product

GMG ColorProof – HP Designjet Z3200 Photo Series using HP Vivera Dye Inks and GMG ProofPaper semimatte 250 SWOP Coated #5

III. Introduction

The GMG ColorProof color management software combined with the HP Designjet Z3200 Photo inkjet printer provides a contract-quality proofing system in ContoneProof mode.

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 ProfileEditor
- GMG RIP Server for PDF and PostScript®
- GMG SpotColor Editor

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

IV. Control Guide

IDEAlliance specifies that control aids such as an ISO 12647-7 Digital Control Strip 2007 should be printed on each off-press proof. As a minimum requirement, any control strip used for proofing applications should contain solid patches for the primary process colors (YMCK), two-color overprints (RGB), and a three-color overprint (YMC), as well as a 25%, 50%, and 75% tint in stated line screen resolution of each of the primary process colors and 3-color gray



patches. The accuracy of the original values should be verified for all control strips. Use and interpretation of a control guide is the responsibility of the creator.

GMG recommends usage of the IDEAlliance ISO 12647-7 Digital Control Strip v2.



V. System Components

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 4.5.4 or later
 - HP Designjet Z3200 Photo Series printer in 24 or 44 inch with HP Viverna Dye Inks
 - GMG ProofPaper semimatte 250
- Printer Calibration Procedure
 - To meet SWOP standards, the HP Designjet Z3200 Photo Series printers must be calibrated by using the GMG ColorProof printer calibration procedure.
 - The calibration has to achieve the following Delta E values:*
 - Color Values: Average ΔE must be below 0.8.*
 - Maximum allowed ΔE must be below 2.50.*
 - Black Values: Average ΔL must be below 0.8.*
 - Maximum allowed ΔL must be below 2.50.*
- Color Matching Profile
 - HP_Z3200_1200dpi12c_GMGsemimatte250_SWOPpublicationsheet5_V1.mx4*
- Proofing media
 - The GMG ProofPaper semimatte 250 has to be used with the above profiles. GMG GmbH & Co.KG guarantees a paper tint reproducibility of 1 ΔE for different batches.
- Digital Proof Control Strips
 - All proofs created with GMG ColorProof must contain a control strip to verify conformance as described under IV. *Control Guide*.
 - * All printer calibrations and proof profile files are available on the GMG ColorProof software CD-ROM or on the web site www.gmgcolor.com.

VI. Finishing Procedures

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

VII. Finished Proof Characteristics

A proof with the color characteristics referenced in Appendix 1 is to be expected when measured from the IDEAlliance ISO 12647-7 Digital Control Strip 2007 having been properly made to all the listed system components and finishing procedures.

Note: Three-color grays are comprised of Cyan, Magenta, Yellow: 75, 66, 66; 50, 40, 40; and 25, 19, 19 values.



All measurements to control and verify SWOP and GRACoL proof have to be done with the X-Rite Eye One (D50, 2 degree observer, no UV cut filter, white backing).

VIII. Sample Proofs

GMG Americas has supplied three (3) sets of hard copy proofs for retention that conform to this Application Data Sheet by an IDEAlliance certifying contractor.



**Appendix 1
Characterization Data CIELab Values**

IDEAlliance ISO 12647-7 Digital Control Strip 2007 for SWOP 2006 Coated #5

Patch ID Top	CIELab Data			Maximum
	L*	a*	b*	CIE ΔLab
A1	32.65	-22.26	-23.31	-
A2	56.56	-37.98	-40.93	5
A3	64.70	-26.67	-29.70	-
A4	78.29	-11.19	-11.42	-
A5	26.42	40.29	-3.23	-
A6	47.64	69.97	-3.54	5
A7	58.14	49.08	-2.95	-
A8	75.88	19.59	0.11	-
A9	47.09	-4.83	44.51	-
A10	85.43	-5.82	84.62	5
A11	86.28	-5.18	60.33	-
A12	88.09	-2.76	26.91	-
A13	54.38	-50.05	-13.62	-
A14	37.79	50.15	-21.11	-
A15	68.36	21.69	65.39	-
A16	48.86	15.14	31.31	-
A17	40.69	32.61	12.52	-
A18	33.04	22.15	-14.98	-
A19	51.08	-17.54	25.50	-
A20	36.75	-2.64	-22.16	-
A21	87.97	-0.06	3.85	-
A22	83.35	-0.16	3.31	-
A23	73.53	-0.34	2.37	-
A24	56.84	-0.35	1.34	-
A25	38.89	0.04	0.98	-
A26	27.07	0.55	1.06	-
A27	19.00	1.01	1.18	5

Patch ID Bottom	CIELab Data			Maximum
	L*	a*	b*	CIE ΔLab
B1	15.76	11.76	-23.91	-
B2	26.54	18.56	-42.01	5
B3	40.30	15.39	-31.31	-
B4	65.80	7.14	-13.75	-
B5	26.49	34.78	21.45	-
B6	47.43	64.38	42.74	5
B7	57.01	44.95	36.24	-
B8	74.61	17.32	19.99	-
B9	30.65	-35.02	14.67	-
B10	52.26	-61.49	26.76	5
B11	61.52	-39.10	20.93	-
B12	76.68	-14.80	10.89	-
B13	44.23	-17.41	-40.21	-
B14	47.52	67.23	15.19	-
B15	70.77	-24.24	58.75	-
B16	66.70	19.12	19.70	-
B17	51.52	34.92	26.64	-
B18	40.31	31.25	24.75	-
B19	45.31	-25.37	-1.12	-
B20	90.06	-0.01	4.14	-
B21	87.67	0.00	3.75	-
B22	82.19	-0.02	3.09	-
B23	71.47	-0.07	2.12	-
B24	54.70	-0.44	1.24	-
B25	39.10	-0.23	1.19	-
B26	24.73	0.21	-0.12	-
B27	10.04	0.30	0.53	5

Note: Color measurements comparing measured proof data to this reference data requires the use of a calibrated spectrophotometer.