



Certified 03/09/07



Off-Press Proof Application Data Sheet

ORIS Digital Proofing System™ using ORIS PearIPROOF™ Super for Epson x800 Series printers

GRACoL®¹ Grade 1 Off-Press Proof Application Data Sheet

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 monitor 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 outlined on www.swop.org or www.gracol.org.

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

I. Manufacturer

CGS Publishing Technologies International, LLC.
100 North Sixth Street, Suite 308B
Minneapolis, MN 55403
Telephone +1 (612) 870-0061
Fax +1 (612) 870-0063

II. Product

ORIS Digital Proofing System™ for Epson 4800, 7800, 9800 printers consists of the ORIS Color Tuner™, Epson 8-color Epson® K3™ ink sets and ORIS PearIPROOF™ Super (PSMWS) paper.

III. Introduction

The Epson printer models listed above in section (II) are non-half-tone, digital ink-jet proofing systems. They utilize Epson's Micro Piezo™ technology and K3 ink set, allowing them to achieve photo reproduction quality continuous tone proofs.

This document contains CGS ORIS operating procedures for conformance to SWOP® Application Data Sheet for this system.

IV. Control Guide

IDEAlliance specifies a control guide such as an ADS Proofing Certification Strip be supplied on every off-press proof. As a minimum, this guide should contain solids 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. All control guides should be checked for accuracy of the original values. Use and interpretation of a control guide is the responsibility of the creator.



V. System Components

The following components and limited procedures shall be used with ORIS Digital Proofing System™ in order to achieve conformance with this Application Data Sheet.

Software: ORIS Color Tuner Pro software, ORIS Certified Proof for verification of SWOP ADS Control Bar

Measurement Devices: X-Rite DTP 70 UV for Calibration, X-Rite Eye-one Pro (non-UV) for SWOP ADS Control Bar

Setup Guide: Color Tuner Calibrate+ApplyMatch.pdf (SWOP) *Contact CGS for guide.*

VI. Finishing Procedures

Proofs should not be measured for 15 minutes to allow for ink dryback. No special Finishing requirements are needed for ORIS Digital Proofing System.

VII. Finished Proof Characteristics

A proof with the color characteristics referenced in Appendix 1 is to be expected when measured from the ADS Proofing Certification Strip 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.

X-Rite Eye-one Pro rev B. (Non-UV) was used to measure the SWOP ADS Control bar using ORIS Certified Proof™.

(ORIS Certified Proof setup files and procedures are available upon request)

VIII. Sample Proofs

CGS Publishing Technologies International, LLC. has supplied three (3) sets of hard copy proofs for retention or has had their monitor system verified that it conforms to this Application Data Sheet by an IDEAlliance certifying contractor.

Appendix 1

Characterization Data CIELab Values

ADS Proofing Certification Strip GRACoL 2006 Coated #1

Patch ID	CIELab Data			Maximum Delta E(ab)
	L*	a*	b*	
Paper	95	-0.02	-1.96	3
Yellow Solid	88.94	-5.02	93.17	5
Yellow 75%	90.28	-4.69	69.03	-
Yellow 50%	91.66	-3.87	43.57	-
Yellow 25%	93.15	-2.14	20.33	-
Magenta Solid	47.93	74.11	-3.01	5
Magenta 75%	57.88	56.32	-5.35	-
Magenta 50%	70.24	35.3	-6.06	-
Magenta 25%	82.55	16.79	-4.98	-
Cyan Solid	54.96	-37.12	-50	5
Cyan 75%	64.5	-27.32	-39.44	-
Cyan 50%	74.69	-17.15	-27.45	-
Cyan 25%	84.68	-8.25	-15.29	-
Black Solid	14.95	0.19	-0.14	5
Black 75%	39.75	-0.57	-1.02	-
Black 50%	59.77	-0.53	-1.61	-
Black 25%	77.43	-0.4	-1.93	-
Red Solid	47.37	68.25	48.79	6
Green Solid	50.12	-68.43	25	6
Blue Solid	24.13	17.2	-46.14	6
3 Color 100%	23	0.17	-0.25	6
3 Color 75%	39.4	-0.54	-0.45	-
3 Color 50%	57.54	-0.12	-1.44	3
3 Color 25%	75.41	0.3	-1.36	-

Note: 3-color 25% and 75% CIELab values are calculations from the IT8/7.4 characterization data as these patches are not a subset of that data.

FOGRA Wedge Characterization Data CIELab Values for GRACoL 2006 Coated #1

Patch ID	CIELab Data		
	L*	a*	b*
Top 1-1	54.96	-37.12	-50
Top 1-2	66.6	-25.13	-37.01
Top 1-3	78.64	-13.52	-22.72
Top 1-4	47.93	74.11	-3.01
Top 1-5	60.35	51.93	-5.67
Top 1-6	75.1	27.61	-5.85
Top 1-7	88.94	-5.02	93.17
Top 1-8	90.56	-4.57	63.58
Top 1-9	92.21	-3.24	33.89
Top 1-10	53.4	36.61	28.63
Top 1-11	40.54	20.86	14.82
Top 1-12	31.57	36.9	22.52
Top 1-13	32.32	40.62	-2.26
Top 1-14	49.01	0.15	40.24
Top 1-15	33.5	-36.22	11.08
Top 1-16	35.04	-25.01	-20.6
Top 1-17	20.89	6.27	-23.5
Top 1-18	87.93	-0.2	-1.98
Top 1-19	80.88	-0.38	-1.99
Top 1-20	67.04	-0.47	-1.76
Top 1-21	52.32	-0.59	-1.47
Top 1-22	35.39	-0.56	-0.87
Top 1-23	14.95	0.19	-0.14
Bottom 2-1	24.13	17.2	-46.14
Bottom 2-2	40.84	17.09	-35.77
Bottom 2-3	61.97	10.77	-23.84
Bottom 2-4	47.37	68.25	48.79
Bottom 2-5	59.09	47.55	39.25
Bottom 2-6	73.54	24.66	23.99
Bottom 2-7	50.12	-68.43	25
Bottom 2-8	62.69	-41.44	20.96
Bottom 2-9	76.12	-20.37	11.54
Bottom 2-10	70.23	19.71	18.63
Bottom 2-11	70.88	22.91	72.4
Bottom 2-12	48.28	70.95	17.76
Bottom 2-13	37.89	52.56	-22.07
Bottom 2-14	72.7	-25.21	65.09
Bottom 2-15	52.53	-53.19	-19.34
Bottom 2-16	42.57	-16.27	-48.19
Bottom 2-17	95	-0.02	-1.96
Bottom 2-18	87.56	-0.34	-3
Bottom 2-19	80.65	-1.08	-3.55
Bottom 2-20	66.41	-2.16	-3.96
Bottom 2-21	52.3	-2.93	-3.25
Bottom 2-22	38.23	-4.77	-3.5
Bottom 2-23	26.57	-7.05	-4.13

ISO12647-7 Digital Control Strip 2007

The IDEAlliance Print Properties Working Group has developed a new digital control strip for off-press proofs. As of November 2007, this control strip replaces the current FOGRA Wedge and proofing bar on the proofing certification test forms. This ADS Attachment provides the CIE Lab data for all fifty-four (54) patches contained in the new strip. These data sheets will replace Appendix 1 in the Application Data Sheets for all previous certified proofing systems to the specific data set for GRACoL C1, SWOP C3, or SWOP C5.



Control Strip Patch Values

Patch ID Top	Patch Tint % Values			
	CMYK_C	CMYK_M	CMYK_Y	CMYK_K
A1	100	0	0	60
A2	100	0	0	0
A3	70	0	0	0
A4	30	0	0	0
A5	0	100	0	60
A6	0	100	0	0
A7	0	70	0	0
A8	0	30	0	0
A9	0	0	100	60
A10	0	0	100	0
A11	0	0	70	0
A12	0	0	30	0
A13	100	0	40	0
A14	40	100	0	0
A15	0	40	100	0
A16	0	40	70	40
A17	0	70	40	40
A18	40	70	0	40
A19	40	0	70	40
A20	70	40	0	40
A21	0	0	0	3
A22	0	0	0	10
A23	0	0	0	25
A24	0	0	0	50
A25	0	0	0	75
A26	0	0	0	90
A27	0	0	0	100

Patch ID Bottom	Patch Tint % Values			
	CMYK_C	CMYK_M	CMYK_Y	CMYK_K
B1	100	100	0	60
B2	100	100	0	0
B3	70	70	0	0
B4	30	30	0	0
B5	0	100	100	60
B6	0	100	100	0
B7	0	70	70	0
B8	0	30	30	0
B9	100	0	100	60
B10	100	0	100	0
B11	70	0	70	0
B12	30	0	30	0
B13	100	40	0	0
B14	0	100	40	0
B15	40	0	100	0
B16	10	40	40	0
B17	20	70	70	0
B18	0	70	70	40
B19	70	0	40	40
B20	0	0	0	0
B21	3.1	2.2	2.2	0
B22	10.2	7.4	7.4	0
B23	25	19	19	0
B24	50	40	40	0
B25	75	66	66	0
B26	100	100	100	0
B27	80	70	70	100

Appendix 1
Characterization Data CIELab Values

ISO12647-7 Digital Control Strip 2007 for GRACoL 2006 Coated #1 Data Set

Patch ID Top	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
A1	30.05	-22.65	-28.82	-
A2	54.96	-37.12	-50.00	5
A3	66.60	-25.13	-37.01	-
A4	82.64	-9.99	-17.85	-
A5	26.45	41.59	-1.73	-
A6	47.93	74.11	-3.01	5
A7	60.35	51.93	-5.67	-
A8	80.03	20.38	-5.35	-
A9	48.53	-5.30	49.19	-
A10	88.94	-5.02	93.17	5
A11	90.56	-4.57	63.58	-
A12	92.84	-2.51	24.77	-
A13	52.53	-53.19	-19.34	-
A14	37.89	52.56	-22.07	-
A15	70.88	22.91	72.40	-
A16	50.86	15.13	33.06	-
A17	42.17	33.42	13.25	-
A18	34.60	23.09	-17.15	-
A19	52.45	-18.04	26.12	-
A20	36.56	-1.43	-26.62	-
A21	92.88	-0.08	-1.96	-
A22	87.93	-0.20	-1.98	-
A23	77.43	-0.40	-1.93	-
A24	59.77	-0.53	-1.61	-
A25	39.75	-0.57	-1.02	-
A26	25.57	-0.21	-0.53	-

Patch ID Bottom	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
B1	15.18	8.84	-24.61	-
B2	24.13	17.20	-46.14	6
B3	40.84	17.09	-35.77	-
B4	69.57	8.37	-19.26	-
B5	26.22	35.38	24.54	-
B6	47.37	68.25	48.79	6
B7	59.09	47.55	39.25	-
B8	78.62	17.92	18.20	-
B9	28.47	-39.38	12.04	-
B10	50.12	-68.43	25.00	6
B11	62.69	-41.44	20.96	-
B12	80.64	-14.75	8.25	-
B13	42.57	-16.27	-48.19	-
B14	48.28	70.95	17.76	-
B15	72.70	-25.21	65.09	-
B16	70.23	19.71	18.63	-
B17	53.40	36.61	28.63	-
B18	41.61	32.01	26.83	-
B19	45.40	-26.20	-3.82	-
B20	95.00	-0.02	-1.96	3
B21	92.43	0.19	-2.06	-
B22	86.74	0.31	-2.04	-
B23	75.52	0.07	-1.50	-
B24	57.54	-0.12	-1.44	3
B25	39.39	-0.30	-0.55	-
B26	23.00	0.17	-0.25	-

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

Appendix 2
Characterization Data CIELab Values

ISO12647-7 Digital Control Strip 2007 for SWOP 2006 Coated #3 Data Set

Patch ID Top	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
A1	31.96	-21.01	-26.32	-
A2	56.99	-37.23	-44.95	5
A3	66.07	-27.13	-33.53	-
A4	80.52	-11.80	-15.33	-
A5	25.80	40.75	-2.90	-
A6	47.84	72.08	-3.11	5
A7	58.95	51.61	-4.46	-
A8	78.03	20.64	-3.18	-
A9	47.67	-4.29	45.76	-
A10	87.97	-5.03	88.10	5
A11	89.28	-5.09	62.78	-
A12	91.24	-2.93	25.28	-
A13	54.86	-51.51	-16.56	-
A14	38.04	51.19	-21.63	-
A15	69.74	23.44	67.23	-
A16	49.55	15.84	31.56	-
A17	40.89	33.29	12.00	-
A18	34.01	22.69	-16.52	-
A19	52.24	-17.96	25.88	-
A20	36.91	-2.13	-25.08	-
A21	90.46	-0.06	-0.21	-
A22	85.69	-0.18	-0.70	-
A23	75.49	-0.39	-1.61	-
A24	58.21	-0.51	-2.27	-
A25	39.28	-0.34	-1.80	-
A26	26.88	-0.14	-0.89	-

Patch ID Bottom	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
B1	15.57	11.13	-25.12	-
B2	26.85	18.10	-44.32	6
B3	40.85	16.19	-34.08	-
B4	67.49	7.60	-17.17	-
B5	25.19	35.01	22.46	-
B6	46.86	66.21	45.03	6
B7	57.68	47.17	37.42	-
B8	77.94	18.06	18.43	-
B9	29.42	-36.88	12.46	-
B10	52.12	-64.75	24.83	6
B11	63.15	-41.26	21.06	-
B12	79.23	-15.72	8.94	-
B13	44.63	-16.62	-44.13	-
B14	47.87	69.02	16.49	-
B15	72.78	-24.61	60.84	-
B16	68.56	20.02	18.67	-
B17	52.11	36.50	27.30	-
B18	40.29	32.11	25.13	-
B19	45.95	-26.09	-3.01	-
B20	92.50	0.00	0.00	3
B21	90.08	-0.02	-0.08	-
B22	84.59	-0.04	-0.22	-
B23	73.54	-0.15	-0.48	-
B24	56.29	-0.48	-0.41	3
B25	39.80	-0.33	0.14	-
B26	24.79	0.22	-0.52	-

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

Appendix 3
Characterization Data CIELab Values

ISO12647-7 Digital Control Strip 2007 for SWOP 2006 Coated #5 Data Set

Patch ID Top	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
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	-

Patch ID Bottom	CIELab Data			Maximum
	L*	a*	b*	ΔE (ab)
B1	15.76	11.76	-23.91	-
B2	26.54	18.56	-42.01	6
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	6
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	6
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	3
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	3
B25	39.10	-0.23	1.19	-
B26	24.73	0.21	-0.12	-

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