



Certified - April 2005

## SWOP® Application Data Sheet For Onyx Graphics Inc.

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® press proof." See other explanations and recommendations as outlined on pages 18 and 45 of the 1997 edition of the SWOP® Specifications.

1. Manufacturer: Onyx Graphics Inc.  
6915 South High Tech Drive  
Midvale, Utah 84047  
(801) 568 – 9900  
[www.onyxgfx.com](http://www.onyxgfx.com)
  
2. PRODUCT: Onyx Graphics Workflow Products:  
  
PosterShop with Hewlett-Packard DesignJet 5500 with Dye Ink  
Production House Hewlett-Packard DesignJet 5500 with Dye Ink
  
3. INTRODUCTION:  
Onyx Graphics Workflow Solution Products permit the accurate simulation of proofed color spaces by implementing a calibrated digital print workflow and using ICC Color Profiles. This system was implemented using Onyx Graphics PosterShop to calibrate, profile, and print to a Hewlett-Packard DesignJet 5500 with Dye Ink on Hewlett-Packard RC Satin Proofing Paper - C7952A. The system is a color proofing system only. No expectation is given for line frequency, angle, or dot proofing. Output profile was generated using the Onyx implementation of Gretag Macbeth Logo Profile Maker.

#### 4. CONTROL GUIDE

A Digital Proofing Control Bar, obtained from SWOP®, Inc. or created in-house, must be included on all proofs, in order for them to be considered acceptable SWOP® proofs. SWOP® specifies that a control guide such as the GATF/SWOP Proofing Bar be supplied on every off-press proof. As a minimum, this guide should contain solids of the primary process colors and two-color overprint, as well as a 25%, 50% and 75% tint in 133-line screen ruling of each of the process colors. Additional areas such as 1%, 2%, 3%, 5% and 95%, 97%, 98%, 99% may be particularly useful in digital proofing. SWOP® has made color bars meeting the above requirements available as a free download from its website [www.swop.org](http://www.swop.org). These color bars are reproduced here, but these are examples. These samples are not valid for proofing:



Any color bar should be checked for the accuracy of the original values. Use and interpretation of such a bar is the responsibility of the user.

#### 5. SYSTEM COMPONENTS

The following components and limited processing procedures shall be used with Onyx Graphics Workflow Products in order to achieve conformance with this Application Data Sheet:

- Onyx Graphics PosterShop, or Production House Workflow products.
- Hewlett-Packard DesignJet 5500 with Dye Ink
- Hewlett-Packard RC Satin Proofing Paper - C7952A

##### PROCESS:

Media is defined and calibrated (including linearization and ink limiting) following the procedure outlined in the 6.0 Media Manager Profiling Guide 2004. An output Color ICC profile for the desired dot pattern and resolution is created for the media using Onyx Graphics Profiler, (Media Manager add-on) or 3<sup>rd</sup> party ICC profile generation software. When the desired proof is generated, the image is printed to the Hewlett-Packard DesignJet 5500 on the profiled media using the appropriate input and output color profiles as described in Chapter 5 of the Onyx Graphics v6.0 User Guide (pp. 75 – 96). In the case of matching the values achieved in this Application Data Sheet, the input ICC profile to be used is the Onyx SWOP\_IT8 ICC Profile. The system rendering intent is ABSOLUTE COLORIMETRIC.

#### 6. FINISHING PROCEDURES

The following finishing instructions are necessary in order that output from Onyx Graphics PosterShop, or Production House Workflow products on Hewlett-Packard DesignJet 5500 with Dye Ink, printed on Hewlett-Packard RC Satin Proofing Paper - C7952A conforms to this Application Data Sheet:

- All profiling targets are printed and allowed 15 minutes dry time prior to reading.
- No lamination or coating should be applied to the print prior to proofing verification.

## 7. FINISHED PROOF CHARACTERISTICS

When properly processed and/or produced, the following are characteristics to be expected from Onyx Graphics PosterShop, or Production House Workflow products on Hewlett-Packard DesignJet 5500 with Dye ink, printed on Hewlett-Packard RC Satin Proofing Paper - C7952A:

Tolerance	Absolute Density		Dot Gain		75% Print Contrast	CIELAB of solid (per CGATS.5)				
	+/- 0.05		+/- 3.0		+/- 3.0	$\Delta E = 3.0$				
Color	100%	75%	50%			L*	a*	b*	C	h(ab)
Cyan	1.27	0.85	0.53	23.2	33.07	56.29	-41.22	-37.77	55.91	222.5
Magenta	1.40	0.89	0.57	25.5	36.43	43.67	69.32	-0.56	69.32	359.54
Yellow	0.87	0.64	0.45	24.6	26.44	85.20	-2.70	80.23	80.28	91.93
Black	1.49	0.95	0.57	24.9	36.24	19.33	2.59	0.56	2.65	12.20
Red	NA	NA	NA	NA		44.03	65.05	37.21	74.94	29.77
Green	NA	NA	NA	NA		50.46	-61.59	26.83	67.18	156.46
Blue	NA	NA	NA	NA		24.15	18.34	-40.65	44.60	294.28
	Dred (cyan)	Dgreen (magenta)	Dblue (yellow)			L*	a*	b*	C	h(ab)
Gray 25% *	0.29	0.31	0.33			72.88	-0.32	4.21	4.22	94.35
Gray 50% *	0.55	0.58	0.59			56.00	-0.81	3.02	3.13	105.01
Gray 75% *	0.89	0.93	0.92			37.88	1.00	-0.44	1.09	336.21

\* Three color grays made up of Cyan, Magenta, and Yellow: 75/63/63; 50/40/40 and 25/17/17 values.

### Substrate CIE L\*a\*b\* Values

L\* = 96.03

a\* = -0.10

b\* = 0.58

### Substrate Densities (D0)

Cyan = 0.02

Magenta = 0.01

Yellow = 0.00

Black = 0.01

Density measurements were made with a calibrated Gretag Macbeth Eye-one UVCut Spectrophotometer in status "T" absolute mode, using a black backing per CGATS.4. Tone Value Increase values (Total Dot Gain) were calculated using the Murray-Davies formula.

CIE L\*a\*b\* readings were done using a calibrated Gretag Macbeth Eye-one UVCut Spectrophotometer and computation made using the D5000 illuminant /2 degree observer in accordance with CGATS.5.

## 8. SAMPLE PROOF

Onyx Graphics has supplied the SWOP<sup>®</sup> offices with two sets of Onyx Graphics PosterShop, or Production House Workflow proofs which conform to this Application Data Sheet to be forwarded to the Graphic Arts Technical Foundation (GATF) for their analysis and retention.