KODAK Premium Backlit Film / 7 mil

GENERAL DESCRIPTION

For long lasting, photo-realistic backlit displays

- A glossy, 7-mil translucent polyester film providing high image quality and robust handling properties
- Viable alternative to KODAK PROFESSIONAL ENDURA Transparency Display Materials
- Highest quality backlit solution with dye inks

COMPATIBILITY

When used with the following printers and inks, KODAK Premium Backlit Film / 7 mil is recommended for all applications. Recommendations will provide optimal output when using printing paths commonly associated with each printer. These settings are intended as starting points—other combinations of settings may also provide good results. See "Printing Notes" for more information. "Yes" in the Laminate Recommendation column indicates that this media is likely to have good adhesion with laminates in that class.

For compatibility information for all KODAK Wide-Format Inkjet Media, refer to the Inkjet Media Compatibility Chart at **www.encad.com.**

Manufacturer	Model	Ink Compatibility		Laminate Recommendation (See Finishing Section)			
		Ink	Print Driver Media Setting	Heat Activated Thermal 210-240°F (99-116°C)	Heat Activated Low Temperature 185-195°F (85-91°C)	Heat Assisted 185-195°F (85-91°C)	Pressure Sensitive Ambient to 120°F (49°C)
KODAK PROFESSIONAL	4042/4060/4742/4760	Lightfast Plus Dye	See Printing Notes	Yes	Yes	No	Yes
KODAK PROFESSIONAL	4860	Lightfast Plus Dye	See Printing Notes	Yes	Yes	No	Yes
HEWLETT-PACKARD DesignJet	800	Dye	**High-Gloss Photo**	No	No	No	Yes
HEWLETT-PACKARD DesignJet	1050C/1055CM	Dye	**Heavy Coated Paper**	No	No	No	Yes
HEWLETT-PACKARD DesignJet	2000/2500/2800/3000/3500/3800 CP	Dye	See Printing Notes	Yes	Yes	Yes	Yes
HEWLETT-PACKARD DesignJet	5000 CP	Dye	See Printing Notes	No	No	No	Yes
ENCAD NovaJet	PROe	GX	See Printing Notes	Yes	Yes	Yes	Yes
ENCAD NovaJet	500	GX	See Printing Notes	Yes	Yes	Yes	Yes
ENCAD NovaJet	600/700 Series	GS+ GX	See Printing Notes	GS+: Yes§ GX: Yes	GS+: No GX: Yes	GS+: No GX: Yes	Yes
ENCAD NovaJet	850	GS+ GX	See Printing Notes	GS+: Yes§ GX: Yes	GS+: No GX: Yes	GS+: No GX: Yes	Yes
ENCAD NovaJet	1000i	Qi Dye	See Printing Notes; Printer Heater Setting: 10	Yes	Yes	Yes	Yes
COLORSPAN DisplayMaker	Hi-Res 8	EC	**TransWhite**	Yes	Yes	Yes	Yes
COLORSPAN DisplayMaker	Esprit/Series XII	EC	See Printing Notes	Yes	Yes	Yes	Yes

‡ Laminates with vinyl film type work best.
§ Hot shoe type thermal laminators only.

PRINTING NOTES

The Print driver media settings recommended in the Compatibility section are intended to provide usable results with available media profiles found in the printer manufacturer's provided drivers and RIPs. These recommendations will provide proper ink laydowns with no pooling or bleeding, and color which will be acceptable for many applications. It is suggested that tests be run using these recommendations and color corrections be made to meet user expectations.

In cases where no recommendation is made, choose the media setting closest to the KODAK Wide-Format Inkjet Media you are using. For example, if you are printing on New KODAK Premium Photographic Glossy Paper / 180g, choose a setting in your driver or RIP which is intended for another glossy photo paper. This should give you a print which requires little or no adjustment to get usable results.

RIPs and Profiles for Encad and Other Printers

Several third party RIPs (raster image processors) are available with profiles supporting Kodak media for Encad, Kodak and other printers. For more information visit Encad's website at www.encad.com/Support/RIP-Support/index.asp.

Following is a list of software companies that provide RIPs for the Encad product line. To obtain profiles that are not available directly from Encad, as well as complete descriptions and support, please visit the RIP company's website.

Encad	www.encad.com/Support/RIP-Support/index.asp
Colorgate Photo RIP	www.colorgate.com/home_e/products_e.html
Best GmbH	www.bestcolor.com/bcint/index.htm
Scanvec Amiable	www.scanvecamiable.com
Onyx Graphics	www.onyxgfx.com
AIT International	www.applied-image.com/Shiraz-RIP.htm
Image Technologies	www.imagetechdev.com
Global Graphics	www.globalgraphics.com
Colorburst Systems	www.compatsys.com
Wasatch Computer Technology, Inc.	www.wasatchinc.com
CADlink Technology	www.cadlink.com
JET RIP	www.jangeun.co.kr

Custom Profiles

While the above printing recommendations and available profiles from Encad will provide adequate results for many wide-format inkjet applications, there are applications, such as inkjet proofing, which demand more exacting color requirements. It is suggested that for these applications, custom profiles be built for given ink/media/printer combinations. Many color management and profile building software applications are available which allow the user to manage color to meet their needs. Also, many RIPs will provide color profiling options which allow the user to control the color of their output. Please contact your dealer or Encad technical support for help determining the best solution for your application.

Epson 7600/9600/10000 Printer

Avoid using the take-up reel when printing at greater than 50% RH.

Hewlett-Packard Printers

Note: These settings were determined using the respective HP DesignJet printer drivers with Adobe PhotoShop on a Windows NT 4.0 platform, and are intended to produce images of high quality with little user adjustment. These settings may vary using different applications and systems, but will still provide a good starting point. Leave other settings at the default state of the printer driver. You may want to experiment with other settings to customize results for needs and applications.

Other features, such as Postscript Options and Page Size setup, are user definable and will have no impact on final image quality, but should be examined and adjusted by the user.

Some backlit medias may not work properly with the media sensors on printer take-up spools, such as those supplied with the HP Designjet 5000 and 5500. When this happens, tape a cut piece of the same media over both the front and back media take-up sensors. This will provide enough density for the take-up spool to work correctly. Be sure to remove these pieces when using other types of media or the take-up spool will not operate correctly.

In low humidity environments many types of film based media will show static marks when printed on HP Designjet 5000 series printers. These marks, which appear as low density ink blotches aligned with the bottom rubber rollers,

are noticeable in areas which are intended to be white and are next to high density areas, such as large black text. The marks are not present within image areas. To help reduce or eliminate these static marks, try one or all of the following suggestions:

- Operate the printer in a higher humidity environment or place a humidifier near the printer. The static marks will virtually disappear as the humidity is higher, at about 45% RH or higher.
- Print at slower speeds. This will cause less static buildup and make the marks less noticeable.
- Add a 1% or higher fill color for CMYK in white areas; the exact amount to be determined by testing in your working environment. It has been demonstrated in a 30% RH environment that filling white areas with a 1% dot for all 4 chanels, C, M, Y, and K, will virtually remove the marks. The resulting light gray in white areas is not objectionable, especially when prints are trimmed so that no unprinted media is visible as a reference. The fill color can be added in the application that the file was created in or within your RIP software. In ONYX Postershop, simply use the "Replace Color" tool, select white, and add 1% to all 4 colors.

Caution

When using film based medias on printers in very low humidity conditions, 30% or lower, static charges may be enough to damage your printer. It is not recommended that you print in these conditions. Be sure to follow your printer manufacturers guidelines for operating conditions, which are especially critical when using film based medias.

Hewlett-Packard DesignJet 5000PS3

Press the “media load/unload” button so the control panel will guide you through each step. Position the roll tightly against the fixed flange on the supply reel, making sure the media has no “telescoping.” This may require a little more force than media on different cores. Feed the media through the printer, aligning it with the blue guideline, and pull enough media through to ensure the edges are square to the supply roll. Complete the remaining instructions as directed on the control panel.

As with other HP printers, be sure to allow print head alignment when switching media types for optimum image quality. If this is not automated, select it through **Setup**. Choose **Menu -> Utilities -> Calibrations -> Printhead Alignment.** When prompted for **Media Type**, select **Photo Imaging Satin**.

When printing with the HP DesignJet 5000PS3 printer driver, make the following selections:

Print

Setup

—Select **Properties**

—Under the **Device Options** tab, select the desired **Print Quality** mode. **Max Quality** produces excellent images on this media.

—Click **OK** again to exit **Properties** and return to **Setup**.

When Printing with the HP DesignJet 5000 printer driver, make the following selections:

Print

Setup

—Select **Properties**

—Under the **Basic Setup** tab, select the desired **Print Quality** mode. **Max Quality** produces excellent images on this media.

—Click **OK** again to exit **Properties** and return to **Setup**

HANDLING

All inkjet media must be handled with care before and after printing to prevent damage to the ink receiving layer and printed images. Use the following guidelines, your experience, and common sense for the proper care of your media.

- Store unused media in its original packaging, using the core-plugs and plastic sleeves.
- Allow media to acclimate to your environmental conditions for at least 24 hours before use.
- Kodak Inkjet media is rolled printable side out. Avoid touching the printable side by handling by the edges of the roll.
- Wear cotton gloves when handling media to avoid scratches, abrasions and fingerprints from moisture and oils on your hands.
- Do not allow the media to come into contact with moisture. Moisture will damage many types of inkjet medias before and after printing.
- Avoid handling, trimming, laminating or other finishing until prints are completely dry. Dry times will vary based on media type, ink type and environmental conditions.
- Do not fold, bend or crease media or damage may occur to the ink receiving layer.
- Do not allow the surface of the media to come into contact with itself or another inkjet media.
- Use media only in recommended operating conditions—see "Physical Characteristics" section.

Curl

Most types of roll-based inkjet media will exhibit some amount of curl, either toward the base side or toward the print side. This will vary based on media type and environmental conditions. Some media will curl more in low humidity environments and others in high humidity environments. Also, media may curl more towards the core or end of the roll due to "roll memory."

Although curl is mainly an issue when printing, it can also have an impact on laminating and other finishing procedures. Follow these guidelines, and use your experience and common sense to avoid issues caused by curl.

When printing:

- Advance media several inches past the print platen before starting a print job.
- Add weights or clips to the leading edge of the media.
- Attach media to the printer's take-up spool before starting printing.
- Adjust vacuum settings accordingly on printers equipped with variable media vacuum settings.
- Adjust heater and dryer settings on equipped printers to obtain optimum conditions to ensure flat media. See printer owners' manual for their recommendations.

During finishing:

- Reverse wind media, when completely dry, to counteract roll memory.
- Do not allow media to remain rolled for extended periods of time.
- Rough cut prints and lay them flat before laminating.

FINISHING

Detailed information and tips can be found in Kodak publication E-2600, *Laminating, Mounting, and Finishing KODAK Wide-Format Inkjet Media*.

Lamination

Please refer to lamination chart in compatibility sections above for specific printer/ink/laminate recommendations.

Lamination Class Definitions

Heat Activated Thermal, 210-240°F (99-116°C)*	Laminates with a '0.5/2.5' mil polyester/ adhesive ratio for hot roll laminators at 210 - 240°F, and '1/2' mil inkjet compatible hot shoe laminator films.
Heat Activated Low Temperature, 185-195°F (85-91°C)*	Several '1/2' mil polyester/adhesive ratio for hot roll laminators at 185 - 195°F.
Heat Assisted, 185-195°F (85-91°C)	Laminates with pressure sensitive adhesives, specially formulated for inkjet prints to be applied on hot roll laminators at 185 - 195°F. They can use either vinyl or polyester films.
Pressure Sensitive, Ambient to 120°F (49°C)	Cold applied liquid laminate adhesives on either vinyl or polyester films.

* For both Thermal and Low Temperature, we recommend the 3 mil laminates mentioned. Thicker laminates may be applied to the back of the print for increased total thickness.

It is important that your print be dry before laminating. For best results, use inkjet-specific laminate products.

For increased durability, choose a laminate with UV protection and encapsulate with a 1/4-1/2" (6.5-13 mm) seal around the edges of a print to prevent moisture and other airborne pollutants from reaching the image. Heavier weight papers may require a wider edge seal.

Mounting

For a rigid, durable backlit display, laminate this media and mount it to plexiglass with an optically clear mounting adhesive, like KODAK PROFESSIONAL Clear Mount. A low-glare front laminate is desirable to reduce reflections in brightly lit areas.

In view boxes that have plexiglass in them already, mounting is not necessary, and a thicker (10-mil) surface laminate may offer enough rigidity for the print to lay flat. For extra rigidity or for larger displays, laminate the back of the print with a laminate equally thick as the front material.

PERFORMANCE GUARANTEE

Indoor Performance Guarantee

Encad will guarantee prints from compatible systems against noticeable fading, cracking, yellowing, and bleeding when the print is viewed from its intended viewing distance.

The Indoor Performance Guarantee durations will vary based on the media/printer/ink system. The stated durations assume the media is displayed indoors under fluorescent light (average intensity 450-lux, 12 hours/day), and/or with indirect sunlight exposure (at least 6 feet from a window, with no direct sunlight). Plexiglass™, Lexan™, or a similar sheet must protect prints, and lightbox illumination is expected to not exceed 5000-lux fluorescent. The guarantee covers both laminated or unlaminated prints as noted in the table below. The unlaminated guarantee assumes the media will be displayed in a typical office environment and will not be exposed to a high level of pollutants (above a typical ozone level for an office environment).

Terms, conditions and addtional information about the Performance Guarantee can be found at www.encad.com.

Manufacturer	Model	Ink	Durability
KODAK PROFESSIONAL	3043/3062	6 Color Dye	1 year
HEWLETT-PACKARD DesignJet	5000 Series	6 Color Dye	6 months laminated
HEWLETT-PACKARD DesignJet	2xxx/3xxx	4 Color Dye	6 months laminated
ENCAD NovaJet	800, 700, 600, 500 Series	4/8 Color GS+	3 months laminated
		4/8 Color GX	18 months laminated
	1000i	Qi Dye	18 months laminated
EPSON Stylus Pro	7600/9600/10000/10600	6 Color Photographic Dye	6 months laminated

Additional Durability Information

The following table can be used as a guide for printers and inks not included in the Performance Guarantee.

Durability Guidelines for Printers Not Included in Performance Guarantee

If Using	Expect Durability Similar To:
KODAK Lightfast Plus Dye	Encad GX
Colorspan EC Dye	Encad GX
Roland Dye	Epson 9000 Dye
Mutoh Dye	Epson 9000 Dye

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ORDERING INFORMATION

KODAK Premium Backlit Film / 7 mil

Roll Length	Roll Width / CAT No.				
	24 in. (61 cm)	**36 in. (91.4 cm)**	**42 in. (106.7 cm)**	**50 in. (127 cm)**	**60 in. (152.4 cm)**
100 ft (30.5 m)	177 1948	850 7097	893 4101	156 3428	193 7846
16.4 ft (5 m) (sample)	NA	853 4588	NA	NA	NA

NA = Not available

PHYSICAL CHARACTERISTICS

Physical Characteristics	Value	Test Method Reference
Caliper	7 mil (178 µm)	ISO 534
Opacity	60	Tappi T 524
CIE Whiteness	78	Tappi T 524
Weight	270 g/sm	ISO 536
Brightness	88	Tappi T 524
60-degree Gloss	NA	ISO 7668
L*(D65/10 uvi/BBW)	97	Tappi T 524
Operating Conditions	59-86°F (15-30°C), 20-70% RH (non-condensing)	
Recommended Storage Conditions	68°F (20°C), 50% RH	

If you have questions or need assistance, visit Encad's website at www.encad.com or in the U.S. contact Encad Technical Support at 1-877-362-2387.

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