

# KODAK Reverse Print Backlit Film / 6 mil

## GENERAL DESCRIPTION

For durable indoor and outdoor backlit signage and trade-show displays.

- Translucent, 6-mil polyester view-through base for excellent durability and quick drying
- Heavy weight for robust handling
- Broad printer compatibility with piezo and thermal dye (reverse print) and pigmented inks (direct print)
- Reverse print provides built-in image protection

## COMPATIBILITY

When used with the following printers and inks, KODAK Reverse Print Backlit Film / 6 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](http://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	2042/2060	Dye Pigment	See Printing Notes	No	Yes	Yes	Yes
KODAK PROFESSIONAL	3038/3043/ 3062	Dye Pigment	See Printing Notes	No	No	No	Yes
KODAK PROFESSIONAL	4042/4060/ 4742/4760	Lightfast Plus Dye, Pigment	See Printing Notes	No	No	Yes <sup>‡</sup>	Yes
KODAK PROFESSIONAL	4860	Lightfast Plus Dye, Pigment	See Printing Notes	No	No	Yes <sup>‡</sup>	Yes
KODAK PROFESSIONAL	5260	Dye	See Printing Notes	No	No	No	Yes
HEWLETT-PACKARD DesignJet	800/1050C/ 1055CM	Dye	See Printing Notes	No	No	Yes	Yes
HEWLETT-PACKARD DesignJet	2000, 2500, 2800, 3000, 3500, 3800 CP	Dye UV	See Printing Notes	No	No	Yes	Yes
HEWLETT-PACKARD DesignJet	5000	Dye	<b>Paper Semi-Gloss</b>	No	No	Yes	Yes
HEWLETT-PACKARD DesignJet	5000	UV	See Printing Notes	No	No	Yes	Yes
ENCAD NovaJet	PROe	GS, GX, GO+	See Printing Notes	No	GS: No GX, GO+: Yes	Yes	Yes
ENCAD NovaJet	500	GS, GX, GO+	See Printing Notes	No	GS, GO+: No GX: Yes	Yes	Yes

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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)
ENCAD NovaJet	600/700 Series	GS+, GX, GO+	See Printing Notes	No	No	Yes	Yes
ENCAD NovaJet	850	GS+, GX, GO+	See Printing Notes	No	No	GS+‡, GX: Yes GO+: No	Yes
ENCAD NovaJet	1000i	Qi Dye	See Printing Notes; Printer Heater Setting: 2	Yes	No	No	Yes
ENCAD NovaJet	1000i	Qi Pigment	See Printing Notes; Printer Heater Setting: 2	Yes	No	Yes	Yes
COLORSPAN DisplayMaker	Hi-Res 8	EC, PC	<b>TransWhite</b>	No	No	EC: Yes PC: No	Yes
COLORSPAN DisplayMaker	Esprit / Series XII	EC, PC	See Printing Notes	No	No	EC: Yes PC: No	Yes
MUTOH Falcon	RJ-4100, RJ-6100	Dye Pigment	See Printing Notes	No	No	No	Yes
ROLAND	Hi-Fi Jet FJ-50/FJ-40, Hi-Fi Jet Pro FJ-400/ FJ-500/ FJ-600	Dye Pigment	See Printing Notes	No	No	No	Yes
EPSON Stylus Pro	7000/9000	Dye	<b>Photo Quality Inkjet Paper</b>	No	No	No	Yes
EPSON Stylus Pro‡	7500/9500	Pigment	<b>Double Weight Matte Paper</b>	No	No	No	Yes
EPSON Stylus Pro	7600/9600/ 10000/10600	Photographic Dye	<b>Heavy Polyester Banner</b>	No	No	No	Yes
EPSON Stylus Pro‡	10000/10600	Archival Pigment	<b>Backlight Film</b>	No	No	No	Yes
EPSON Stylus Pro‡	7600/9600/ 10600	Ultra Chrome Pigment	<b>Backlight Film</b>	No	No	No	Yes

‡ Laminates with vinyl film type work best.

§ Ensure heater is turned off on equipped printers.

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

### 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 9500 with Epson Print Driver

Media selection: **Double Weight Matte Paper**

All other settings should be left at default.

For increased color saturation and density:

—select **Custom**

—select **Advanced**

—Under **Color Management** select **Color Controls**

—Adjust **Brightness** and **Contrast** to best suit your application

### 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, but it is still very easy. Feed the media through the printer, aligning it with the blue guideline, and pull enough media through to be able to make sure the edges are square to the supply roll. Complete the remaining instructions as directed on the control panel.

### RGB Files

Printer Media Selection: **Paper Semi Gloss**

Leave all other settings at default.

### CMYK Files

Printer Media Selection: **Paper Semi Gloss**

For optimization of color the following settings are necessary using the **HP DesignJet 5000PS3** printer driver:

**Print**

**Setup**

—select **Properties**

—select the **Device Options** tab

—select **Printer Color Management** under **Color Management**

—click on **Color Options**

—select **Standard Emulation**

—choose **DIC** in the drag-down menu next to **CMYK for Offset Presses**

—choose **RGB** in the drag-down menu next to **RGB Monitor**

—select **Colormetric** under **Rendering Intents**

All other settings should be left at default

Other options such as Print Quality are left to the user's discretion and will have little impact on color quality.

## Epson 9000 with Fiery RIP

Print Mode: **PQ Inkjet Paper**

Rendering Style: **Photographic**

CMYK Simulation: **SWOP-COM/M**

RGB Source: **Off**

Screen Method: **Error Diffusion**

Print quality can be affected by choosing different resolutions, uni- or bi-directional printing, and brightness. These choices are up to the individual's preferences. Other options that can affect image quality are disabled by deselecting RGB Source. The remaining selections within the RIP will affect only such things as page setup type options and will not affect final image quality.

## Epson 9000 with Epson Print Driver

Media Selection: **Photo Quality Inkjet Paper**

For optimum color saturation and density:

—select **Custom**

—select **Advanced**

—Under **Color Management** select **Color Adjustment**

—select **PhotoRealistic**

All other settings should be left at default.

## Epson 7600/9600/10000 Series Photographic Dye Printers

Media Selection: **Heavy Polyester Banner**

For optimum color saturation and density:

Select **Custom**

Select **Advanced**

Choose **Photo Enhance 4** under **Color Management**

## 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.

## VIEWING

This media can be viewed through either side with transmissive light. When prints are intended to be viewed or profiled through the base, mirror the images when you print them and make any color measurements with the image side down.

When creating profiles for media that is viewed by transmissive light, use transmission measurement devices. If one is not available, acceptable profiles can be created with a reflective device by placing the media on white paper (a piece of inkjet paper will work) when making measurements. Results may be slightly lighter and less saturated than when a true transmission device is used, but it will provide you with a good starting point and, if necessary, you can adjust the brightness and colors with your RIP or image manipulation software.

## FINISHING

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

### Lamination

Refer to “Laminate Compatibility” in the compatibility section for specific printer/ink/laminate recommendations.

#### Lamination Definitions

<b>Heat Activated Thermal, 210-240°F (99-116°C)*</b>	Polyester laminates applied with hot roll laminators at 210-240°F.
<b>Heat Activated Low Temperature, 185-195°F (85-91°C)*</b>	Polyester laminates applied with hot roll laminators at 185-195°F.
<b>Heat Assisted, 185-195°F (85-91°C)</b>	Polyester or vinyl laminates with pressure sensitive adhesives; specially formulated for inkjet prints, and applied with hot roll laminators at 185-195°F.
<b>Pressure Sensitive, Ambient to 120°F (49°C)</b>	Polyester or vinyl laminates with pressure sensitive adhesives on a release liner, applied at ambient conditions or at low temperature, 100-120°F.

\* For both Heat Activated Thermal and Low Temperature, use a laminate with a total thickness (polyester and adhesive) of 3 mils or less on the face side. Thicker laminates may be applied to the back of the print for increased total thickness.

For best results, use inkjet-specific laminate products and follow the laminate manufacturer’s instructions. It is important that your print be dry before laminating. Lamination performance varies as a function of materials, technique, and environmental conditions. For increased durability, choose a laminate with UV protection. For additional protection from moisture, encapsulate the image leaving a 1/4" or greater edge border. For increased rigidity or for larger displays, laminate the front and back with equally thick material.

For a rigid, durable backlit display, adhere the print side (matte side) of this media to extruded acrylic with an optically clear mounting adhesive. No lamination is necessary on the glossy polyester absced of this material. In view boxes that have extruded acrylic sheets in them already, mounting is not necessary. Simply drop the laminated image between the sheets of acrylic. If desired, a thicker laminate, such as 5 mil or greater, will offer increased rigidity for these applications.

For more information, see KODAK Publication PPI-856, *Application Guidelines*, at [www.encad.com/media/index.html](http://www.encad.com/media/index.html)

## 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 additional information about the Performance Guarantee can be found at [www.encad.com](http://www.encad.com).

Manufacturer	Model	Ink	Durability
KODAK PROFESSIONAL	3043/3062	6 Color Dye	1 month 3 months laminated
		6 Color Pigment	1 year
HEWLETT-PACKARD DesignJet	5000 Series	6 Color Dye	3 months
		6 Color UV	1 year
	2xxx/3xxx	4 Color Dye	3 months
		4 Color UV	1 year
ENCAD NovaJet	800/700/600/500 Series	4/8 Color GS+	1 month
		4/8 Color GX	1 year
		4/6/8 Color GO+	1 year*
	1000i	Qi Dye	6 months laminated
		6 Color Qi Pigment	2 years
EPSON Stylus Pro	7600/9600/10000/10600	6 Color Photographic Dye	1 month
	10000/10600	6 Color Archival Pigment	1 year
	7000/9000	6 Color Dye	1 month
	9500	6 Color Pigment	1 year
	7600/9600/10600	7 Color Ultra Chrome Pigment	1 year

\* When displayed behind protective plexiglass or other similar material.

### Outdoor Applications

Outdoor exposure, including exposure to ultraviolet radiation, moisture, oxidation, and chemical pollutants all influence the final outdoor longevity of a graphic image. Encad guarantees that the effects of those exposures will not affect the quality and suitability of the graphic image print, based on accepted industry test standards, for advertising purposes and other customary outdoor display uses. Specifically, Encad guarantees prints from the systems below against excessive fading, peeling, cracking, yellowing, bleeding, and running for the periods stated below. Lightbox illumination is expected to not exceed 5000-lux fluorescent.

Terms, conditions and additional information about the Performance Guarantee can be found at [www.encad.com](http://www.encad.com).

Manufacturer	Model	Ink	Durability
KODAK PROFESSIONAL	3043/3062	6 Color Pigment	6 months
HEWLETT-PACKARD DesignJet	5000 Series	6 Color UV	6 months
	2xxx/3xxx	4 Color UV	6 months
ENCAD NovaJet	800/700/600/500 Series	4 Color GO+	6 months*
		6 Color GO+	6 months*
		8 Color GO+	6 months*
	1000i	4 Color Qi Pigment	6 months*
		6 Color Qi Pigment	4 months*
EPSON Stylus Pro	10000/10600	6 Color Archival Pigment	6 months
	9500	6 Color Pigment	6 months
	7600/9600/10600	7 Color Ultra Chrome Pigment	4 months

\* When displayed behind protective plexiglass or other similar material.

### 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
Colorspan PC Pigment	Encad GO+
Roland Dye	Epson 9000 Dye
Roland Pigment	Epson 9500 Pigment
Mutoh Dye	Epson 9000 Dye
Mutoh Pigment	Epson 9500 Pigment

### ORDERING INFORMATION

#### KODAK Reverse Print Backlit Film / 6 mil

Roll Length	Roll Width / Order 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)	NA	189 3064	879 4828	157 8194	144 6830
16.4 ft (5 m) (sample)	NA	875 9573	NA	NA	NA

NA = Not available

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## PHYSICAL CHARACTERISTICS

Physical Characteristics	Value	Test Method Reference
Caliper	6 mil (152 $\mu$ m)	ISO 534
Opacity	53	Tappi T 524
CIE Whiteness	101	Tappi T 524
Weight	190 g/sm	ISO 536
Brightness	90	Tappi T 524
60-degree Gloss	<5 print side (matte), >100 backside (glossy)	ISO 7668
L*(D65/10 uvi/BBW)	>95	Tappi T 524
Flame Spread Classification	Class A	ASTM E84
Operating Conditions	59-86°F (15-30°C), 30-60% 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](http://www.encad.com), or in the U.S. contact Encad Technical Support at 1-877-362-2387.

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