

# KODAK Economy Photographic Papers / 160 g

*KODAK Economy Photographic Glossy Paper*

*KODAK Economy Photographic Satin Paper\**

*\*Formerly ENCAD Bright White Photo Paper*

## GENERAL DESCRIPTION

For low-cost, photo-realistic posters, murals, point-of-purchase displays, sign, and charts

- Economical medium weight 6-mil photorealistic papers
- Thermal Dye compatibility
- Glossy and satin surfaces for rich color, professional appearance
- Same media profile for either surface

## COMPATIBILITY

When used with the following printers and inks, KODAK Economy Photographic Papers / 160 g are 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	DS1000	Dye	<b>High-Gloss Photo</b>	No	No	Yes††	Yes
KODAK PROFESSIONAL	2042/2060	Dye	See Printing Notes	No	Yes	Yes	Yes
KODAK PROFESSIONAL	4042/4060/4742/ 4760	Lightfast Plus Dye	See Printing Notes	No	No	No	Yes
KODAK PROFESSIONAL	4860	Lightfast Plus Dye	See Printing Notes	No	No	Yes	Yes
HEWLETT-PACKARD DesignJet	750C/755CM	Dye	<b>High-Gloss Photo</b>	No	No	Yes††	Yes
HEWLETT-PACKARD DesignJet	2000/2500/ 2800/3000/ 3500/3800 CP	Dye	See Printing Notes	No	No	Yes†	Yes
HEWLETT-PACKARD DesignJet	5000	Dye	See Printing Notes	No	No	No	Yes
ENCAD NovaJet	PRO 36/50	GS, GX	See Printing Notes	No	GS: Yes GX: No	Yes	Yes
ENCAD NovaJet	PROe	GA, GS, GX	See Printing Notes	No	No	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	500	GA, GS, GX	See Printing Notes	No	No	Yes	Yes
ENCAD NovaJet	600/700 Series	GS, GS+, GX	See Printing Notes	No	GS, GS+: No GX: Yes§	GS+: Yes† GS, GX: Yes	GS+: Yes† GS, GX: Yes
ENCAD NovaJet	850	GS+, GX	See Printing Notes	No	GS+: No GX: Yes§	Yes	Yes
ENCAD NovaJet	1000i	Qi Dye	See Printing Notes; Printer Heater Setting: 10	No	No	No	Yes
COLORSPAN DisplayMaker	Hi-Res 8	EC	<b>High-Gloss Photo</b>	No	No	No	Yes
COLORSPAN DisplayMaker	Esprit/Series XII	EC	See Printing Notes	No	Yes	Yes	Yes

† Laminates with vinyl film type work best.

‡ Lower ink coverages needed and/or use only for rigid display.

§ For optimum results, let print dry 24 hours before laminating.

## 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

For more exacting color, 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 <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 for download directly from Encad, as well as

complete product 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.

## 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.

### 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 Gloss**.

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**

### Hewlett-Packard DesignJet 3500 CP

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 **Image Quality -> Printhead Service -> Align Now**. When prompted for **Media Type**, select **High-Gloss Photo Paper**.

When Printing with the HP DesignJet 3500CP PS3 printer driver, make the following selections:

#### **Print**

#### **Setup**

—Select **Properties**

—Under the **Advanced** tab, select the desired **Print**

**Mode**. **Photographic Quality** produces excellent images on this media. For **Color Management**, select **SWOP**. For **Rendering Intent**, select **Saturation**.

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

When printing with the HP DesignJet 3500CP printer driver, make the following selections:

#### **Print**

#### **Setup**

—Select **Properties**

—Under the **Device Options** tab:

—Select **High-Gloss Photo** for paper type

—Select the desired **Quality** mode. **Photo** produces

excellent images on this media. Under **Color Control**, select **Ink Emulation** and choose **SWOP**. For **Rendering Intent**, select **Saturation**.

—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 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.

It is important that your print be dry before laminating. For best results, use inkjet-specific laminate products and follow laminate manufacturer's instructions as a starting point. Since lamination performance varies as a function of materials, technique and environmental conditions, it is important to run tests to determine the best methods for your setup. Cleanliness of prints and work area is critical to avoid defects in lamination.

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

**Note:** After laminating, keep KODAK Economy Photographic Glossy Paper / 160 g flat (avoid rolling).

### Mounting

Prints can be mounted (laminated or not) to a variety of materials, including poster board, foam board, Sintra, Lexan and more. Use inkjet-specific adhesive materials and follow the manufacturer's instructions.

## 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). 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
HEWLETT-PACKARD DesignJet	5000 Series	6 Color Dye	8 years
HEWLETT-PACKARD DesignJet	2xxx/3xxx	4 Color Dye	10 years
ENCAD NovaJet	800, 700, 600, 500 Series	4/8 Color GS+	1 year
		4 Color GX	10 years
		8 Color GX	8 years
	1000i	Qi Dye	2 years unlaminated 5 years 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

# KODAK Economy Photographic Papers / 160 g

## ORDERING INFORMATION

### KODAK Economy Photographic Glossy Paper / 160 g

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	877 6320	873 8338	889 0907	152 5161
16.4 ft (5 m) (sample)	NA	105 3115	NA	NA	NA

### KODAK Economy Photographic Satin Paper / 160 g

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	216014-01	216015-01	216016-01	216017-01
16.4 ft (5 m) (sample)	NA	216018-01	NA	NA	NA

NA = Not available

## PHYSICAL CHARACTERISTICS

Physical Characteristics	Glossy / 160 g	Satin / 160 g	Test Method Reference
Caliper	6 mil (152 μm)	6 mil (152 μm)	ISO 534
Opacity	>90	>90	Tappi T 524
CIE Whiteness	135	163	Tappi T 524
Weight	160 g/sm	160 g/sm	ISO 536
Brightness	>100	118	Tappi T 524
60-degree Gloss	>60	45 - 65	ISO 7668
L*(D65/10 uvi/BBW)	>95	97	Tappi T 524
Flame Spread Classification	Class A	Class A	ASTM E84
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](http://www.encad.com) or in the U.S. contact Encad Technical Support at 1-877-362-2387.

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