

Technical Newsletter:



Working with Other Commercially-available Paper HP Designjet Z2100 and Z3100 Photo Printer Series Updated version for Firmware 6.0.0.8

November, 2007



The large-format HP Designjet Z2100 and Z3100 Photo Printer series is designed to deliver high-quality, consistent results across a wide variety of Original HP printing material and other commercially-available paper. To ensure optimal results, Original HP large-format printing material is uniquely engineered and tested together with HP 70 Vivera pigment inks and the printer. Scientific innovation goes into the development of Original HP printing material. For example, HP can devote up to two years developing a new photo paper, which can require four to ten revisions using up to 15 ingredients per formulation.

This careful engineering and testing of the entire system of HP printing material, Vivera pigment inks and the printer enable HP to deliver outstanding image quality and exceptional fade resistance. Prints resist fading for more than 200 years and are water-resistant on a range of HP creative and specialty papers.¹ For more information on Original HP printing material, designed together with the HP Designjet Z2100 and Z3100 Photo Printer series, visit www.hp.com/go/designjet/supplies and www.hp.com/go/supplies/printpermanence

For flexibility and versatility, customers can choose from over 35 Original HP printing materials, or other commercially-available paper.

This document provides a quick reference guide to help users manage and work with other commercially-available paper for the HP Designjet Z2100 and Z3100 Photo Printer series.

¹ Display permanence rating by Wilhelm Imaging Research, Inc. on a range of HP creative and specialty paper. For details: www.hp.com/go/supplies/printpermanence.

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Introduction:

Using other commercially-available paper correctly with the HP Designjet Z2100 and Z3100 Photo Printer series

The large-format HP Designjet Z2100 and Z3100 Photo Printer series is designed to deliver high-quality, consistent results across a wide variety of commercially-available paper. Since there is a wide choice of brands and paper, it is very important that the customer select the correct paper preset while loading the paper and printing from the driver.

Table 1 shows the recommended paper settings for some of the commonly used paper in the market.

For optimum results, first load the paper with the recommended settings, then calibrate and profile the paper. For creating the ICC profile, there are two different options:

- Profile the paper using the HP Color Center
- Use an alternate profile (often available from a colleague or another paper manufacturer). For more details on this option refer to the document:

If a particular paper does not appear in Table 1, the different settings behind each paper preset or paper settings are provided to help selection of the profile most suitable for that paper. See the section titled: [Selecting the Correct Paper Preset](#).

"The information contained herein is a guide to help you select the best possible settings when using other commercially-available papers branded paper with the hp printers, firmware versions and hp drivers specified. If you find that the recommendations do not meet your needs, please use the information on the table "Selecting the Correct Paper Preset" to find other possible candidates. However, HP does not make any express guarantees for the results obtained under such proposed settings."

Table 1 : Other Commercially-available paper and recommended paper settings 1/2

Paper Manufacturer	Product Name (in English)	Front Panel & Driver selection Paper settings <i>(settings in light orange can be downloaded from HP Knowledge Center)</i>
Canson	Arches Pure White Textured 240g Arches Natural Textured 310g Canson Mi Teintes Digital Ivory Canson Montval Torchon digital 280g Canson WaterColor Digital 210g Arches Natural Soft 240g ArchesPure White Soft 240g Canson Mi Teintes Digital Blanc	Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper >250 g/m ² Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper Fine Art Material >Fine Art Paper
Somerset	Somerset Velvet Enhanced	Fine Art Material >Fine Art Paper >250 g/m ²
Fujifilm	Fujifilm FA Photo Rag Paper 300 gsm Fujifilm Pearl Photo Paper 290 gsm Fujifilm Photo Paper Satin 270 gsm Fujifilm Premium Semi-Gloss Paper 240 gsm Fujifilm High Glossy Photo Paper 280 gsm Fujifilm HD White Cotton Canvas 400 gsm Fujifilm Artist Canvas 340 gsm Fujifilm Art Museum Torchon 300 gsm Fujifilm Art Etch Paper 300 gsm Fujifilm Art Museum Canvas 300 gsm Fujifilm Glossy Paper 200 gsm Fujifilm Lustre Paper 200 gsm Fujifilm Satin Photo Paper 280 gsm Fujifilm POPup Banner Fujifilm Matte Photo paper 230 gsm Fujifilm Fine Art Museum Smooth Rag Paper 300 Fujifilm Fine Art Museum BARITE paper 300 gsm Fujifilm Art Museum Rough 300 gsm	Fine Art Material >Fine Art Paper >250 g/m ² Fine Art Material > Fine Art Pearl (more ink) Photo Paper > HP Premium ID Satin Fine Art Material > Fine Art Pearl (more ink) Fine Art Material > Fine Art Pearl (more ink) Fine Art Material > Canvas Fine Art Material > Fine Art Paper >250 g/m ² Fine Art Material >Fine Art Paper >250 g/m ² Fine Art Material >Fine Art Paper >250 g/m ² Fine Art Material >Fine Art Paper >250 g/m ² Photo Paper > HP Premium ID Gloss Photo Paper > HP Premium ID Satin Fine Art Material > Fine Art Pearl (more ink) Photo Paper > Photo Gloss Paper Photo Paper > Photo Matte Paper Fine Art Material >Fine Art Paper Additional HP Media > Fine Art Barite Paper Fine Art Material >Fine Art Paper >250 g/m ²
Tetenal	Tetenal Photo Glossy Paper 272 gsm Tetenal Photo Semi Matte Paper 240 gsm	Photo Paper > HP Premium ID Gloss Photo Paper > HP Premium ID Satin
Moab	Moab Entrada Fine Art Bright 300gsm	Fine Art Material >Fine Art Paper >250 g/m ²

Please note: Many customers use both Original HP printing material and other commercially-available paper. For recommended Original HP printing material, see Table 5: Designed Together to Work Better Together -- Original HP Printing Material Portfolio.

Downloading Paper Presets

To download a paper preset from the **HP Knowledge Center**, use the following links:

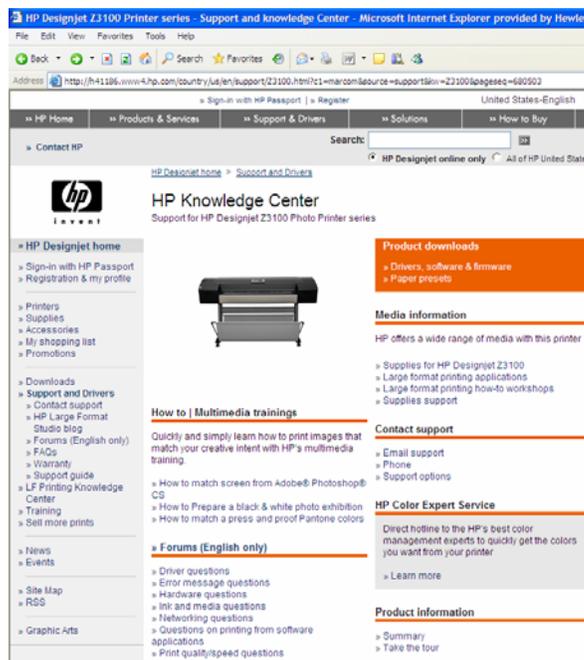
For the HP Designjet Z3100 Photo Printer series

http://www.hp.com/go/knowledge_center/djz3100

For the HP Designjet Z2100 Photo Printer series

http://www.hp.com/go/knowledge_center/djz2100

Click on “Paper Presets” to access the HP paper presets download page.



Selecting the Correct Paper Preset

If a particular paper does not appear in Table 1, see the information below in Tables 2, 3 and 4 to choose the correct category for that paper.

Table 2: **Definition of Print Characteristics**

Paper Type	<p>The name displayed in the driver and the front panel (the English version). Attributes highlighted in yellow are unique attributes relative to the other paper in the same category</p> <ul style="list-style-type: none"> • Table 3: Other commercially-available paper available through “Custom Paper” • Table 4: Original HP printing material available through “Add New Paper” 	
Gloss Enhancer	Yes (Y) / No (N) : Indicates whether HP Gloss Enhancer can be used (applies to Glossy, Semi-gloss/Satin, finishes)	
Borderless	Yes (Y) / No (N) : Indicates whether it is possible to print without margins (applies to roll paper only)	
Carriage Height	High (H) / Low (L) : Carriage height has 2 positions. For paper weights over 250g, the recommended paper type selection is a “High” setting (avoids printhead crashing into the paper)	
Printing Black	<p>Photo Black (P) / Matte Black (M) / HP Quad-black (Q)/ All less light gray (3B): This setting indicates which inks are used when printing black:</p> <ul style="list-style-type: none"> • Photo black + grays • Matte black + grays • Medium Gray+ Photo Black + Matte black (<i>light gray not used</i>) • The full HP Quad-black system (matte black + photo black + 2 levels of gray) <p><i>Note: Quad black applies only to the HP Designjet Z3100 Photo Printer series; the HP Designjet Z2100 Photo Printer series uses up to 3 blacks (matte black, photo black and gray).</i></p>	
Ink Limit	Indicates the total amount of ink the paper can absorb to maximize gamut without causing image-quality problems. This setting is expressed in pico-liters (or nano-grams) per 1/600 th x 1/600 th inch paper area (divide by 4 for 1/1200 th by 1/1200 th inch area). In general, the higher the ink limit, the higher the gamut.	
Print Mode	Rendering Resolution (RR)	Resolution at which the image is rasterized/processed in the host (in pixels per printed inch, or <i>pppi</i>)
	Printing Resolution (PR)	Resolution at which the image is printed (in dots per inch, or <i>dpi</i>)
	Other info (OI)	<p># passes</p> <p>Bidirectional</p> <p>Typically, the higher the number of passes, the better the image quality, but at a lower speeds. Also, papers such as glossy paper need a longer drying time that will generally require a higher number of passes.</p> <p>Whether printing when the carriage is traveling in a single direction only (Unidirectional) or in both directions (Bidirectional). Unidirectional modes typically produce better image quality – depending on the number of passes – but at lower speeds.</p>
Automatic Cutter	Yes (Y) / No (N) : Indicates whether cutting will be performed. Even if “Yes” is selected, cutting can be disabled later through the driver. However, if “No” is selected, cutting cannot be re-enabled through the driver.	

Table 3: Other commercially-available paper available through “Custom Paper”

	Other Commercially-available Paper Type	Gloss Enhancer	Borderless	Carriage Height	Printing Black	Ink Limiting	Print Mode (Best)			Auto Cutter
							RR	PR	OI	
Photo Paper	Photo Gloss Paper	Y	Y	L	P	36	600	1200x1200	16p Bidi	Y
	Photo Gloss Paper (more ink)	Y	Y	L	P	46				Y
	Photo Gloss Paper (less ink)	Y	Y	L	P	32				Y
	Photo Semi-gloss/Satin paper	Y	Y	L	P	36				Y
	Photo Semi-gloss/Satin paper (more ink)	Y	Y	L	P	46				Y
	Photo Semi-gloss/Satin paper (less ink)	Y	Y	L	P	32				Y
	Photo Matte Paper	N	N	H	M	30			8p Uni	Y
Proofing Paper	Proofing Gloss Paper	Y	Y	H	P	36	600	1200x1200	16p Bidi	Y
	Proofing Semi-Gloss/Satin Paper	Y	Y	H	P	36				Y
	Proofing Matte Paper	N	N	H	M	30			8p Uni	Y
Fine Art Paper	Canvas	N	N	H	M	42	600	1200x1200	16p Bidi	N
	Fine Art paper	N	N	H	M	42				8p Uni
	Fine Art paper >250 g/m ²	N	N	H	Q	60			Y	
	Fine Art Pearl Paper (more ink)	Y	Y	H	P	46			16p Bidi	
	Fine Art Pearl Paper (less ink)	Y	Y	H	P	32				Y
Coated	Super Heavyweight Coated ²	N	N	H	Q	50	600	1200x1200	8p Uni	Y
	Heavyweight Coated	N	N	H	M	30				Y
	Coated (incl. Bond)	N	N	H	3B	22			6p Uni	Y
Plain	Plain (recycled)	N	N	H	3B	20	600	1200x1200	6p Bidi	Y
Fine Art Barite	Fine Art Barite Paper	Y	Y	H	P	32	600	1200x1200	16p Bidi	Y

² Starting with firmware version 5.0.0.4, both matte and photo black inks are applied. Previous to this version, photo black was not used in this mode.

Table 4: **Original HP Printing Material Print Characteristics**

	Original HP Printing Material Type	Gloss Enhancer	Borderless	Carriage Height	Printing Black	Ink Limiting	Print Mode (Best)			Auto Cutter
							RR	PR	OI	
Photo Paper	HP Premium Instant-dry Photo Gloss	Y	Y	L	P	46	600	1200x1200	16p Bidi	Y
	HP Premium Instant-dry Photo Satin	Y	Y	L	P	46				Y
	HP Professional Satin Photo Paper	Y	Y	L	P	46				Y
	HP Photo Matte	N	N	H	M	30	8p Uni	Y		
Proofing Paper	HP Professional High-gloss Contract Proofing paper	Y	Y	L	P	46	600	1200x1200	16p Bidi	Y
	HP Professional Semi-gloss Contract Proofing paper	Y	Y	L	P	46				Y
	HP Proofing Matte	N	N	H	M	30				8p Uni
Fine Art Paper	HP Collector Satin Canvas	N	N	H	M	30	600	1200x1200	16p Bidi	N
	HP Professional Matte Canvas	N	N	H	M	42				N
	HP Artists Matte Canvas	N	N	H	M	42				N
	HP Hahnemühle Smooth Fine Art	N	N	H	M	42			8p Uni	Y
	HP Matte Litho-realistic paper	N	N	H	M	42			8p Uni	Y
	HP Hahnemühle Textured Fine Art	N	N	H	M	42			8p Uni	Y

IMPORTANT NOTE: Please note the following recommendations:

- Use borderless on roll paper only for high gloss/semi-gloss paper
- Do not use the cutter on canvas paper

Original HP Printing Material Portfolio

HP printing material is a critical component of the HP Designjet printing system. HP Designjet printers, ink cartridges, Vivera pigment inks and printing material are engineered as a single, complete printing system to ensure flawless compatibility and optimum performance. Together with HP Designjet printers and printing supplies, HP large-format printing material is precisely engineered to provide consistently outstanding image quality and exceptional fade resistance³, delivering the printing system reliability expected from HP.

This commitment leads to outstanding print quality and consistency from roll to roll.

For the best value, customers currently using other commercially-available paper should consider trying Original HP printing material. Reliable performance and results ultimately save time and money.

Table 5 provides recommendations on the Original HP printing material comparable to commonly used paper from other manufacturers. For the most up-to-date information on Original HP printing material, visit www.hp.com/go/designjet/supplies. Please note that product availability varies by region and/or country.

**Table 5: Designed Together to Work Better Together—
Original HP Printing Material Portfolio**

Company	For Customers Currently Using:	Try Original HP:	HP Part Number & Formats
Crane	Crane Museum Portfolio Rag	HP Hahnemühle Smooth Fine Art Paper 265 g/m ²	24" - Q8732A 36" - Q8745A 42" - Q8733A
	Crane Museum Silver Rag	HP Professional Satin Photo Paper	24" - Q8759A 44" - Q8840A
Hahnemühle	Hahnemühle German Etching 310 gsm	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
	Hahnemühle Photo Rag 308 gsm	HP Hahnemühle Smooth Fine Art Paper 310 g/m ²	24" - Q8734A 42" - Q8735A
	Hahnemühle Photo Rag < 250 gsm	HP Hahnemühle Smooth Fine Art Paper 265 g/m ²	24" - Q8732A 36" - Q8745A 42" - Q8733A
	Hahnemühle Photo Rag > 250 gsm	HP Hahnemühle Smooth Fine Art Paper 310 g/m ²	24" - Q8734A 42" - Q8735A
	Hahnemühle Natural Art Duo	Some customers liked and tested a new material!: HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A

³ Display permanence rating by Wilhelm Imaging Research, Inc. on a range of HP creative and specialty paper. For details: www.hp.com/go/supplies/printpermanence.

	Hahnemühle Photo Glossy	HP Premium Instant-dry Gloss Photo Paper	18" - Q7990A 24" - Q7991A 36" - Q7993A 42" - Q7995A
	Hahnemühle Photo Rag Duo	HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A
	Hahnemühle Torchon	HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A
	Hahnemühle Fine Art Pearl	HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A
	Hahnemühle Photo Rag Satin	HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A
	Hahnemühle Photo Rag Bright White	HP Hahnemühle Smooth Fine Art Paper 310 g/m ²	24" - Q8734A 42" - Q8735A
	Hahnemühle William Turner	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
	Hahnemühle Albert Duerer	HP Hahnemühle Watercolour Paper	36" - Q1984A
	Hahnemühle White Etching	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
	Hahnemühle White Velvet Satin	Some customers liked and tested a new material!: HP Matte Litho-realistic Paper	24" - Q7972A 36" - Q7973A
	Hahnemühle Museum Eaching	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
	Hahnemühle Canvas Artist	HP Artist Matte Canvas	24" - Q8704A 36" - Q8705A 42" - Q8706A
	Hahnemühle Fine Art Canvas	HP Professional Matte Canvas	24" - Q8673A 36" - Q8671A 42" - Q8674A
	Hahnemühle Canvas Satin	HP Collector Satin Canvas ³	24" - Q8708A 36" - Q8709A 42" - Q8710A
Ilford	Ilford Gallerie Smooth Pearl Paper 290 gsm	HP Professional Satin Photo Paper	24" - Q8759A 44" - Q8840A
	Ilford Gallerie Smooth Gloss 290 gsm	HP Premium Instant-dry Gloss Photo Paper ²	18" - Q7990A 24" - Q7991A 36" - Q7993A 42" - Q7995A
Innova	Innova F-Type Glossy	HP Premium Instant-dry Gloss Photo Paper ²	18" - Q7990A 24" - Q7991A 36" - Q7993A 42" - Q7995A
	Innova F-Type Semi-Matte	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A

Kodak	Kodak Premium Rapid Dry Photo Luster 260gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
	Kodak Professional Photo Paper Luster 255gsm	HP Professional Satin Photo Paper	24" - Q8759A 44" - Q8840A
Somerset	Somerset Velvet Enhanced	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
FujiFilm	Fujifilm FA Photo Rag 300 gsm	HP Hahnemühle Smooth Fine Art Paper 310 g/m ²	24" - Q8734A 42" - Q8735A
	Fujifilm Pearl Photo Paper 290 gsm	HP Professional Satin Photo Paper	24" - Q8759A 44" - Q8840A
	Fujifilm Paper Satin 270 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
	Fujifilm Paper Semi-Gloss 240 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
	Fujifilm Paper High Gloss Photo Paper	HP Premium Instant-dry Gloss Photo Paper	18" - Q7990A 24" - Q7991A 36" - Q7993A 42" - Q7995A
	Fujifilm Photo Paper Glossy 240 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
	Fujifilm Photo Paper Satin 270 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
	Fujifilm HD White Cotton Canvas 400 gsm	HP Professional Matte Canvas	24" - Q8673A 36" - Q8671A 42" - Q8674A
	Fujifilm Artist Canvas 340 gsm	HP Artist Matte Canvas	24" - Q8704A 36" - Q8705A 42" - Q8706A 60" - Q8707A
	Fujifilm Art Photo rag Paper 300 gsm	HP Hahnemühle Smooth Fine Art Paper 310 g/m ²	24" - Q8734A 42" - Q8735A
	Fujifilm Art Etch Paper 300 gsm	HP Hahnemühle Textured Fine Art Paper 265 g/m ² or HP Hahnemühle Textured Fine Art Paper 310 g/m ²	24" - Q8736A 36" - Q8737A 42" - Q8738A 24" - Q8739A 42" - Q8740A
	Fujifilm Fine Art Museum Smooth Rag Paper 300	HP Hahnemühle Smooth Fine Art Paper 310 g/m ² or: HP Matte Litho-realistic Paper	24" - Q8734A 42" - Q8735A 24" - Q7972A 36" - 7973A

	Fujifilm Premium SemiGloss Paper 240 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A
Tetenal	Tetenal Photo Glossy Paper 272 gsm	HP Premium Instant-dry Gloss Photo Paper	18" - Q7990A 24" - Q7991A 36" - Q7993A 42" - Q7995A
	Tetenal Photo Semi Matte Paper 240 gsm	HP Premium Instant-dry Satin Photo Paper	18" - Q8001A 24" - Q7992A 36" - Q7994A 42" - Q7996A

For the most up-to-date information on Original HP printing material, visit www.hp.com/go/designjet/supplies. Please note that product availability varies by region and/or country.

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