

# HP Supplyline

Issue 5 - 2004

A concise information source for HP supplies

**Also inside:**

- HP display graphics - wave 2
- The no.1 reason for selling HP
- The science of printing



## Total Cost of Ownership

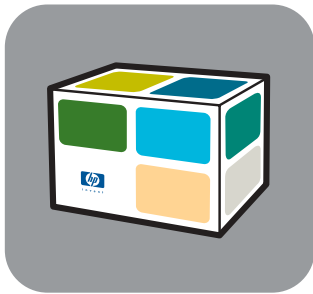
How much does your printing really cost?

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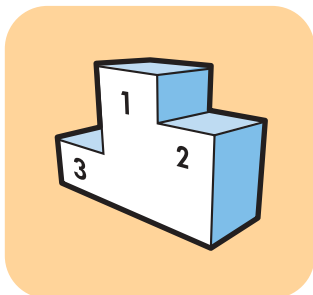
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# Welcome to HP supplyline...

**In this edition of HP supplyline we look forward to an ambitious start to the New Year:**

## Product news

Which innovative HP products will be boosting your sales in quarter one 2004? Find out on page 9.

## Display graphics

Explore the potential of retail and POP display graphics for 2004 - with a little help from HP!

## Ink born in a test tube

As part of our new Supplies Value Proposition, end users will be learning for the first time just how much care, attention and scientific expertise is invested in creating the inks that bear our name.

## Total Cost of Ownership

Reinforcing our value and quality messages, have your customers and prospects considered how much their printing really costs? If they're using HP supplies, they could be pleasantly surprised.

We hope you enjoyed HP supplyline in 2003 and look forward to receiving more of your comments and suggestions throughout 2004.

Sincerely

**Your HP Supplies Team**



# How much does your printing really cost?



If it's your job to determine the best value from your print supplies you'll no doubt be very familiar with the term CPP. Cost Per Page is a pretty much standard way of assessing the cost of printing – the price of the hardcopy printing supplies divided by their yield (the number of pages printed).

CPP, however, isn't a true reflection of the actual true cost of printing. It doesn't, for example, take into account factors like downtime. Did you know that IT departments spend 15% of their time on printing related issues?<sup>1</sup>

## Total Cost of Ownership

The real cost of printing is better gauged by assessing its Total Cost of Ownership. TCO is the attempt to identify and quantify all elements that contribute to the total cost of hardcopy printing solutions in each environment. Because it includes both apparent and hidden costs, a more complete and more accurate picture is given of the actual cost of printing. So, while CPP can give an initial impression of the cost of printing, TCO can be relied on to give the full picture.

Hidden costs factored in during TCO analysis includes yield but then goes on to also consider user productivity, technical support, reliability and final print quality. CPP is actually a far-from-perfect benchmark for cost analysis. There is no published testing standard for CPP. This means a manufacturer can manipulate a CPP figure simply by using a different paper sheet size.

## Sheet size

A full letter size sheet (603.22cm<sup>2</sup>) and an A4 sheet (623.7cm<sup>2</sup>) look similar in size, but the A4 sheet is taller, giving a 3.4% difference in yield. Likewise, margins are not a standard size so a 6mm margin will give a different yield to a 1" margin.

## Ink/toner density



Another area open to abuse is black density. Reducing the 'blackness' of ink/toner can significantly increase the yield of a cartridge. But what about the impact on print quality, readability and long-term fade?

## Range of cost factors -



Hardware	28.37%
Software	14.35%
Consumables	17.14%
Network Mgmt/Admin	8.95%
Infrastructure	8.16%
End-user Ops/LOA	9.56%
Maint/Support	13.48%

## Standard print tests

HP is one of a number of organisations working together to produce a standard print test that will improve on the current 'Dr. Grauert letter' in nominal use. While the Dr. Grauert letter, of standard length using a universal type and type size, only uses text, owing to its original intention to measure typewriter throughput, the new standard will include standardised text, a shaded diagram and a fixed border. It will also determine the size of paper sheet used.

In 2002, the research firm Gartner looked closely at the total costs of printing<sup>2</sup>. They found the actual cost of printing was determined by a large range of factors, beyond the cost of printing supplies and yield.

## Range of cost factors -

### Hardware

Gartner realised that the total cost of printing a single sheet or document actually starts with the hardware. This included not just the acquisition cost (whether lease or purchase) but also the cost of upgrades such as finishing products, increased memory and add-ons like high capacity input trays.

### Software

Although not relevant for the smaller, desktop printers, the software used by large scale printing systems carries license costs. This includes upgrades and customisation of print-enabling software.

“...a more accurate picture of the actual cost of printing...”

## Consumables

The most obvious and visible cost of printing is in consumable supplies – paper, toner, ink cartridges, drum units and maintenance kits. Most people would assume that consumables accounted for the greatest proportion of the TCO figure. But Gartner found that print supplies only account for 17.1% of the actual cost of printing.

## Network management and administration

While the costs of consumable print supplies are frequently taken in to account, Gartner also factored in the costs of management of the network, network costs (allocated on a percentage of use), administration, asset management, installation and configuration costs. Gartner calculated administration costs can be 9% of the TCO.

## Infrastructure

Another ‘hidden’ cost of printing is the planning of the deployment of hard copy devices, including their impact on the physical space. This can add up to 8.2% of the total cost of ownership.

## End user productivity, maintenance and support

Training, user-required maintenance (clearing jams, loading paper, adding toner, replacing cartridges) and downtime due to faults all play a significant part of the TCO, according to Gartner. Nearly 24% of all printing costs are accounted for at the point of use, demonstrating that the easier and more reliable print machines and their consumables are to use, the lower their impact is on the true cost of printing each sheet of paper.

It’s not surprising then, that Gartner came to the conclusion that the labour costs of administrating, maintaining and repairing equipment, along with the associated costs of downtime, can be the single highest expense associated with printing: “Human interaction, although difficult to quantify and often underestimated, can be the single highest expense associated with document production.”<sup>3</sup>

Maybe this is an appropriate moment to mention that readers of PC Magazine gave HP the first-ever A+ in the printing category of their annual service and reliability survey. In fact, HP has been the top grade in this survey for 12 years running.

<sup>1</sup> Source IDC, 1999.

<sup>2</sup> The Importance of Considering TCO in Hard-Copy Solution Purchase Decisions, Engagement # 220065490, February 2002

<sup>3</sup> The Importance of Considering TCO in Hard-Copy Solution Purchase Decisions, Engagement # 220065490, February 2002, p. 21

# Marks & Spencer benefit from HP original cartridges

**One company, however, didn’t seem to enjoy HP’s normal reliability standards. In the UK, leading high street chain Marks and Spencer were becoming increasingly concerned about frequent maintenance calls to IT support regarding printers. As the majority of printers were HP, the company called in HP’s consultants to discuss the problem. The consultants suspected that refilled print cartridges could be the cause of the problems.**

It transpired that there was a high incidence of toner leakage, which, left un-checked, led to paper jams and other print blockages. End users also reported that many of the refilled cartridges did not always work. These downtime problems alone were not enough to persuade the company’s purchasing department to switch from the cheaper refilled cartridges to original HP print cartridges.

Sergio Laborero, Operations Service Manager at Marks and Spencer began a series of run down tests on refilled and original cartridges. The tests, a continuous print run until the cartridge is empty, proved that original cartridges produced, on average, 4,000 more pages than those that were refilled. The purchasing team were now convinced.

Since switching to original cartridges, Marks and Spencer have seen a significant drop in the number of calls to technical support and users are changing cartridges less frequently. And, even though they have increased the number of printers in use, the number of print cartridges used has remain the same - a significant increase in productivity.

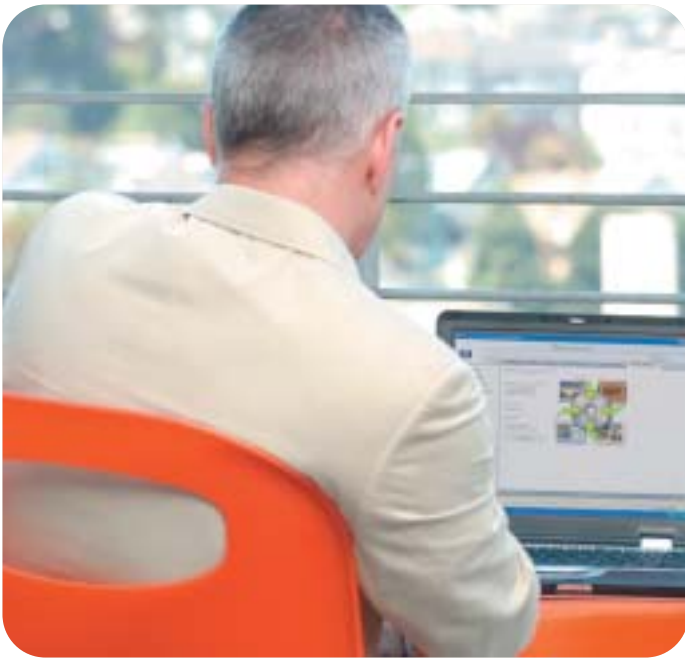
Laborero summed up the company’s experience of TCO. “This whole exercise has reaped so many benefits over and above the cost savings. The overall service of our printers has improved, with less problems reported and a general improvement in quality of output.”

Marks and Spencer’s experience is far from unique – many companies are favouring Total Cost of Ownership over Cost Per Page. Although the initial purchase price of a print supply may be cheaper, they could have hidden costs and might not be as cost effective as they first appear.

“...original cartridges produced, on average, 4,000 more pages than those that were refilled...”



Calculations



# Ordering marketing materials made easy!

**Partners will soon find it even easier to order their marketing support materials online.**

A refreshed design will make navigation more intuitive whilst improvements to the ordering system will also deliver a number of advantages.

## **Speed**

Ordering literature and images will become faster and more straightforward.

## **Enhanced functionality**

Users will be able to download in all languages, track and trace orders or change the address to which they would like their orders delivered.

“...a refreshed design  
for easier ordering...”

# Supplies Reference Guide

Available soon

**The updated Supplies Reference Guide will soon be available for you to order in hard copy or download in electronic format from Connect Online.**

Established partners will know and value the Supplies Reference Guide as a comprehensive marketing tool containing information about the full range of genuine HP supplies including inkjet print cartridges, LaserJet print cartridges, small format papers and films, large format media and storage supplies.

Key selling points, product specifications and compatibility charts are also included, together with clear explanations of non-product related policies and initiatives including HP's environmental programme and anti-counterfeiting measures.

This is all knowledge you can put to work instantly to build your sales and boost your business, so be sure to order or download your updated copy of the SRG soon.



# HP display graphics - wave 2

## HP continues expansion into display graphics sector

**HP is to reinforce its drive to claim a bigger share of the burgeoning display graphics market by introducing new products and delivering great value added services.**

Display graphics created on HP media, with HP inks using HP Designjet printers are an increasingly profitable proposition for print service providers and other producers including quick printers, service bureaus, photo labs, exhibition companies, sign shops and in-house design professionals.

### Demand in many sectors

Demand for these graphics is evident in many sectors including hotels, tradeshows, restaurant and fast food enterprises, retailers, museums and art galleries, theatres and amongst consumers themselves looking to produce banners and posters for family, social and sporting events.

HP is well placed to service the demand with a strong value proposition and a range of inks, printers and media capable of delivering superb quality indoor and short term outdoor applications.

Furthermore, in October and November new printing materials were introduced to reinforce the HP position in the display graphics arena.

### HP Durable SCRIM

HP Durable SCRIM is a water-resistant, thicker (19-mil/483 micrometres) scrim with more tear-resistance than standard, rugged scrim product.

- **Weight: 550 g/m<sup>2</sup>**
- **Compatible with both HP dye and UV inks**
- **Indoor lightfastness /dye inks = 2 years**
- **Outdoor lightfastness / UV ink = 2-3 months**
- **Ideal for hanging banners where water and UV resistance are required**
- **Ideally suited for hem stitching and metal grommeting**
- **The bright white surface provides great contrast and visibility when viewing from a distance**

- Q2520B** HP Durable SCRIM, 550 g/m<sup>2</sup>, 610 mm, 12 m roll
- Q2521B** HP Durable SCRIM, 550 g/m<sup>2</sup>, 914 mm, 12 m roll
- Q2522B** HP Durable SCRIM, 550 g/m<sup>2</sup>, 1067 mm, 12 m roll
- Q2523B** HP Durable SCRIM, 550 g/m<sup>2</sup>, 1372 mm, 12 m roll
- Q2524B** HP Durable SCRIM, 550 g/m<sup>2</sup>, 1524 mm, 12 m roll

“HP aims to claim a bigger share of the displays graphics market by introducing new products...”

### HP Opaque SCRIM

HP Opaque SCRIM has a special blackout layer for complete opacity in applications where the non-printed side must appear clean and white.

- **Thickness 15.3 mil (389 micrometres)**
- **Outdoor Scrim banner, especially for those applications requiring very high image quality & opacity**
- **Premium (total) opacity for blackout feature**
- **Compatible with both HP dye and UV inks**

- Q1898B** HP Opaque SCRIM, 496 g/m<sup>2</sup>, 914 mm, 15 m roll
- Q1899B** HP Opaque SCRIM, 496 g/m<sup>2</sup>, 1067 mm, 15 m roll
- Q1901B** HP Opaque SCRIM, 496 g/m<sup>2</sup>, 1372 mm, 15 m roll
- Q1902B** HP Opaque SCRIM, 496 g/m<sup>2</sup>, 1524 mm, 15 m roll

Note that both products are compatible with UV pigmented inks, providing a long lasting benefit to the customer.





## Current products

A sample of current products targeting the Display Graphics segment is:

<b>Q1914/5A</b>	HP Two-view Cling, 240 g/m <sup>2</sup> , 23 m roll
<b>Q1938/9A, Q1940/1A</b>	HP Productivity Photo Gloss, 240 g/m <sup>2</sup> , 30 m roll
<b>Q1943/4/5A</b>	HP Productivity Photo Semi-gloss, 240 g/m <sup>2</sup> , 30 m roll
<b>C6760A</b>	3M Changeable Opaque Imaging Media 8522CP, 178 micrometers, 914 mm, 13 m roll
<b>C6787/9A</b>	HP Banners with Tyvek <sup>®</sup> , 140 g/m <sup>2</sup> , 15 m roll
<b>C6775/7A</b>	HP Colorfast Adhesive Vinyl, 328 g/m <sup>2</sup> , 12 m roll
<b>C6778/9A, C6780A</b>	HP Colorlucet Backlit UV, 205 g/m <sup>2</sup> , 30 m roll
<b>Q1757A</b>	HP Coloured Paper, fluorescent yellow, 100 g/m <sup>2</sup> , 45 m roll
<b>Q1760A</b>	HP Coloured Paper, yellow, 95 g/m <sup>2</sup> , 45 m roll
<b>Q1742/3A</b>	HP Fabric Cotton Matte, 215 g/m <sup>2</sup> , 10 m roll
<b>Q1733/4/5A</b>	HP Indoor Paper, Self-adhesive, 170 g/m <sup>2</sup> , 23 m roll
<b>C7949/50A</b>	HP Outdoor Billboard Paper Blue Back, 140 g/m <sup>2</sup> , 30 m roll
<b>Q1745/6A</b>	HP Paper-backed Fabric, Polyester, 185 g/m <sup>2</sup> (with paper), 10 m roll
<b>Q1748/9A</b>	HP Paper-backed Fabric, Silk Satin, 160 g/m <sup>2</sup> (with paper), 10 m roll
<b>C7955/6/7A</b>	HP Polyester Film Opaque, White Glossy, 170 g/m <sup>2</sup> , 15 m roll
<b>Q1736/7/8A</b>	HP Polyester Film, White Matte, 165 g/m <sup>2</sup> , 15 m roll
<b>Q1903/4/6/7A</b>	HP Polypropylene, 130 g/m <sup>2</sup> , 23 m roll

To help you capitalise on the opportunity, HP will run a promotional initiative starting on November 1st, centred around our retail and POP products. Furthermore you can count on a dedicated website at [www.hp.com/go/designjet/supplies](http://www.hp.com/go/designjet/supplies), offering our channel partners resources including:

- **step-by-step training**
- **application specific “how to guides”**
- **usage tools**
- **tips and tricks**
- **custom marketing tools**
- **downloadable images**
- **user forum**
- **ordering information**

Now the focus is shifting to highlight the strengths of the HP display graphics portfolio in producing powerful retail and point of purchase applications, which grab attention and generate sales in a tough trading environment.

### Increased demand

As the retail and POP campaign rolls out through autumn 2003 your business can expect to see increased demand from Print Service Providers buying or increasing their use of HP Designjet printers and broadening their use of HP inks and media.

This increased demand will also provide you with an excellent opportunity to win repeat business as new customers come to understand HP's unique competitive advantage with systems-based products. There is also the added value provided by our information, training, tools and websites.

Worldwide, the display graphics opportunity is estimated at \$10.9 billion (SOURCE: Web Consulting).

Our levels of pre and post sales support are also unrivalled in the industry. And remember that Hewlett-Packard large format printing materials are guaranteed to meet HP published specifications, to be free of manufacturing flaws and defects, and are designed to resist paper jams when used correctly. If you are not satisfied with a product for any reason, please visit: [www.hp.com/go/designjet/supplies](http://www.hp.com/go/designjet/supplies), select support, and select HP product support centre to locate product support in your region.

Working together, we can ensure that an increasing share of that market is captured by HP quality printing systems distributed through professional partners like you.

“...powerful retail and point of purchase applications...”





# HP & Douglas Kirkland creating pictures

**Journalists to a recent press trip organised by HP, were treated to a day long photography master class by Douglas Kirkland.**

Just in case you need reminding, Douglas Kirkland is one of the world's leading photographers, specialising in photographing people, more specifically film stars.

He has photographed just about every major film star from Marilyn Monroe to Nicole Kidman, Richard Burton to Pierce Brosnan. His portfolio is like a who's who in the movie business. His books include "ICONS Creativity with Camera and Computer" (Collins), "An evening with Marilyn Monroe", "Legends" and "James Cameron's TITANIC". These books together with numerous awards make Douglas Kirkland a photographer's photographer.

## Using lights

Each journalist was given a HP camera. Three models were available for a "hands on session". Douglas gave a short introduction to lighting and then proceeded to demonstrate how using lights at different angles gave mood to the picture. He also went on to demonstrate the use of reflectors, white, silver and gold. The models were directed into position by Douglas and he gave a detailed explanation on how to go about creating stunning pictures. Here are just a few tips from Douglas Kirkland which were given at the HP session.

- Your subject is the star, make them feel like one. Look for their good features and compliment them, it boosts their confidence and helps them to relax.
- Watch your subject's body language, let them find a comfortable position and don't man-handle them into an unnatural position.
- Ask your subject to wear something not too distracting, simple colours often work the best.
- Don't overshoot, if you think you have the right shot then confirm it on the LCD preview and move on to the next scenario.

The session ended by each journalist choosing their best four pictures and printing them out on HP printers. Douglas then gave a constructive critique.

## Look for the strengths

Douglas constantly looked for the good points in each person's work. "I like the way you have seen this picture and this angle is great". Even on pictures that have been condemned to the bin Douglas found good points, "this is interesting, this picture could be improved if you develop this angle and...".

The message was clear - look for the strengths and build on them, rather than trying to compensate for weaknesses.

We all came away from the day session with a wealth of information.

HP's Everyday Photo Paper portfolio includes:

- Q2510A** HP Everyday Photo Paper, glossy, one-sided – A4 (100 sheets, 170 g/m<sup>2</sup>)
- Q5453A** HP Everyday Photo Paper, semi-glossy, one-sided – A4 (100 sheets, 170 g/m<sup>2</sup>)
- Q2519A** HP Premium Photo Paper, glossy, A4 (20 sheets, 240 g/m<sup>2</sup>)
- C7040A** HP Premium Photo Paper, glossy, A4 (50 sheets, 240 g/m<sup>2</sup>)
- C6059A** HP Premium Photo Paper, glossy, A3 (20 sheets, 240 g/m<sup>2</sup>)
- Q5433A** HP Premium Photo Paper, satin-matt, A4 (20 sheets, 240 g/m<sup>2</sup>)
- Q5434A** HP Premium Photo Paper, satin-matt, A4 (50 sheets, 240 g/m<sup>2</sup>)

"...journalists were treated to a photography master class organised by HP..."



"your subject is the star"



# What's the no.1 reason for selling HP?

With more than one-third of global revenues and more than 50% in Asia-Pacific, HP is now the largest storage player in the market, with a comprehensive portfolio of top quality drives and media. So if you're in the business of selling storage media, HP gives you the best chance of building revenues and repeat business.

## Leading experts

Crucially, we are the No. 1 vendor for LTO tape storage media in Europe, broadly acknowledged as the new industry standard. With more than 2 million cartridges shipped since launch (HP, June 2003), Ultrium data media is HP's fastest growing segment of storage media products ever. This amazing success confirms HP's strategy of continuous and extensive testing programmes to ensure the outstanding quality of its Ultrium media products, their exceptional reliability, and best-in-class performance.

We are also a leading expert in new storage strategies and architectures, with 39% market share in direct attach storage (DAS). We invest some \$400 million a year in storage R&D and offer the most advanced virtualisation technologies for simplifying storage today and tomorrow.

## Media is big business

Media is big business. And it doesn't get any bigger than HP. Our leadership spans the entire storage landscape to create outstanding opportunities for you to build profitable, lifelong relationships with businesses large and small.

For more information on HP storage media, please visit:

[www.hpstoragemedia.com](http://www.hpstoragemedia.com)

“Media is big business.  
And it doesn't get any  
bigger than HP...”



# HP Inkjet print cartridges



## HP Business Inkjet 2300 printer – quick and reliable printing

New printer, existing supplies

Suitable for individuals working at home or small and medium sized businesses that need to print professional looking colour documents, the affordable HP Business Inkjet 2300 printer series gives workteams of up to 8 people the range of features they need to print high quality colour quickly and reliably.

It is network-capable and easy to use, with color performance comparable to a low-end color laser printer and a low acquisition cost.

Compatible HP Inkjet supplies include:

- C4844AE** HP No. 10 black ink cartridge (69 ml)
- C4836AE** HP No. 11 cyan ink cartridge (28 ml)
- C4837AE** HP No. 11 magenta ink cartridge (28 ml)
- C4838AE** HP No. 11 yellow ink cartridge (28 ml)
- C4810A** HP No. 11 Long-life Black Printhead
- C4811A** HP No. 11 Long-life Cyan Printhead
- C4812A** HP No. 11 Long-life Magenta Printhead
- C4813A** HP No. 11 Long-life Yellow Printhead

# HP LaserJet print cartridges

## HP LaserJet product obsolescence

In an ongoing effort to streamline its product offering, HP will discontinue the 92291X HP LaserJet high capacity print cartridge on December 1st, 2003.

The 92291A print cartridge which was shipped with the original printer is not affected by this decision. HP will continue to accept orders on the 92291X after December 1st, 2003 while stocks last. Once supplies are depleted, orders will be automatically cancelled and you need to re-order the 92291A HP LaserJet print cartridge instead.

**Product number:** 92291X  
**Compatible printers:** HP LaserJet III Si series, HP LaserJet 4Si series  
**Obsolescence date:** December 1st 2003  
**Replacement part number:** 92291A





## HP Color LaserJet 3500 printer series – an excellent choice for small businesses

New printer, new supplies

**Now your small business customers can afford to print in colour with the HP Color LaserJet 3500 printer series.**

### Great results every time

It delivers great results every time, with the same speed, ease of use and affordability you expect with black only printing. The Color LaserJet 3500 offers a print speed of 12/12 pages per minute.

An excellent choice for small businesses or small/remote work teams in larger organisations, this HP Color LaserJet printer is ideal for workgroups of 2 – 10 users in a Windows® or Macintosh environment, sharing the printer via a network and producing a variety of business documents. HP Color LaserJet 3500 cartridges and the printer use an improved electro-photographic process to maintain accurate colour even in extreme conditions. Advanced toner formulas deliver a range of vibrant colours and sharp text.

HP smart printing supplies are engineered so that all the printing system components together offer more quality, reliability and performance than could be otherwise achieved. Printer firmware, smart technology, and toner formulation provide intelligent control of print quality. The feature set of the HP Color LaserJet 3500 printer series includes proactive status monitoring and communication, print quality enhancements, and supplies status ordering. The humidity and temperature sensor automatically adapts the printing system to its environment thus ensuring the best printing possible.

### Compatible hp inkjet supplies include\*:

- Q2670A** HP Color LaserJet Smart Print Cartridge, black (6,000 pages at 5%)
- Q2671A** HP Color LaserJet Smart Print Cartridge, cyan (4,000 pages at 5%)
- Q2672A** HP Color LaserJet Smart Print Cartridge, yellow (4,000 pages at 5%)
- Q2673A** HP Color LaserJet Smart Print Cartridge, magenta (4,000 pages at 5%)

\* print cartridges available from 1st December 2003



## HP Color LaserJet 3700 printer series – save time and improve productivity

New printer, new supplies

**Colour printing at low cost, for customers who don't want to compromise on price or performance.**

### Cost effective system

The Color LaserJet 3700 printer series is ideal for small workgroups from 2-15 users in small and medium sized businesses and remote offices of large enterprises who need a reliable, easy-to-use, low cost solution to meet their growing need to print professional colour documents. The Color LaserJet 3700 offers a print speed of 16/16 pages per minute. High-yield HP Color LaserJet 3700 cartridges, speciality papers and the printer are designed together. This cost-effective system provides reliable, efficient operation that minimises user intervention - saving time and improving productivity.

HP smart printing supplies are engineered so that all the printing system components together offer more quality, reliability and performance than could be otherwise achieved. Printer firmware, smart technology, and toner formulation provide intelligent control of print quality. The feature set of the HP Color LaserJet 3700 printer series includes proactive status monitoring and communication, print quality enhancements, and supplies status ordering. The humidity and temperature sensor automatically adapts the printing system to its environment thus ensuring the best printing possible.

### Compatible supplies include\*:

- Q2670A** HP Color LaserJet Smart Print Cartridge, black (6,000 pages at 5%)
- Q2681A** HP Color LaserJet Smart Print Cartridge, cyan (6,000 pages at 5%)
- Q2682A** HP Color LaserJet Smart Print Cartridge, yellow (6,000 pages at 5%)
- Q2683A** HP Color LaserJet Smart Print Cartridge, magenta (6,000 pages at 5%)

\* print cartridges available from 1st December 2003

“reliable, great value, great quality colour printing every time...”



# The science of printing

## Our ink is born in a test tube

**If, like most people, you think ink is just coloured water, you might be interested to know there's more to it than meets the eye. The inks used in HP's inkjet print cartridges are far from being water. They're actually highly scientific liquid formulas, born in high-tech labs.**

The way the ink is used is a miniature scientific miracle in itself. So that the ink can be laid onto the page, it's heated to temperatures way beyond boiling point. At 340°C it explodes to create a single, micro fine ink bubble which then 'jets' out of the cartridge and onto the paper. As there can be up to 40,000 controlled explosions per second you can imagine the stress the ink is under.

Amazingly, it takes up to three years, millions of euros and around 100 different recipes to create a new ink. Chemists in the HP labs put the ink through 50 separate tests, including fade resistance and colour accuracy, before the ink is let anywhere near an HP print cartridge. Those people in white coats do 20 tests alone for purity from contaminants.

Once in the cartridge, the ink needs to help keep the print heads clear, to prevent clogging. Now, to do this, you'd expect it to be pretty 'wet'. But it can't be too wet, as it's needed to dry almost instantly when laid on to the page, otherwise the ink would smudge. We'd love to tell you how it's done, but unfortunately it's HP's trade secret.

All this science is very well and good but what does it mean to you? In the simplest, most unscientific terms, it gives you lots of colours. Almost 1.2 million, in fact. This range ensures you get a rich and bright red when you need one, or if you need the palest blue or slightly off white, that's exactly what you get too.

And, when the colour is on the page, it stays there. Using HP's inkjet print cartridges and HP's photo papers in combination can produce prints that resist fading for generations\*. That's 50 years longer than the best you could hope for from previous home printing technology. So a picture of a grandchild could still be enjoyed when that child has grown up to become a grandparent.

Still think ink is just coloured water? Thanks to the wonders of chemistry, the ink in a HP print cartridge is scientifically bred to help you enjoy sharp, bright images time after time, that last and last.

\* Up to 73 years, based on Wilhelm Imaging Research, Inc., using the HP 58 Photo Inkjet print cartridge on HP Premium Plus Photo papers.

“...the ink in a HP print cartridge is scientifically bred to help you enjoy sharp, bright images time after time...”



# Just how much technology is there in a sheet of paper?

**Imagine looking at an ordinary sheet of paper and seeing moving images. Sounds like something from a sci-fi novel doesn't it? Actually it is, but in generations to come it might just be a reality. For now though, today's advances in photo paper technology mean the photos you print right now will resist fading quite simply for generations\*. And that's no mean feat.**

Digital images printed onto poor quality paper even just a few years ago have already started to fade. However, with quality stock like HP's photo paper, there's more than meets the eye, with embedded technology that guarantees longer lasting prints.

Each sheet of HP's photo paper is made up of four layers that are mostly invisible to the naked eye. These layers help to capture rich and realistic colours that will last much longer than those printed onto inferior paper stock.

The first of the layers, the imaging layer, contains three polymers that lock the dye in exactly the right position. The second layer is an undercoat that absorbs ink solvents. This is a precise science and it helps to understand what happens when inks hit paper. The printer shoots a predetermined amount of ink onto the paper. Allowing too much ink into the paper can cause smearing, wrinkled paper and long drying times. Not enough ink means the photo won't be rich and colourful.

The third layer adds water resistance and is the easiest to see as it also ensures your

photos will be rich and glossy. Finally, the reverse of the paper is coated to control flatness. This really helps when mounting photos in an album or stacking them to show to friends.

HP's coating technology also prevents the nightmare of paper jams and printed pages sticking together. This is pretty vital when you consider the speeds the best HP printers operate at these days.

The result of all this technology is that, when you use HP's photo papers with an HP printer and a genuine HP inkjet print cartridge, you can enjoy rich, realistic photos time after time. You can also expect your photos to resist fading for generations\*. And that's science-fact.

\* Up to 73 years, based on Wilhelm Imaging Research, Inc., using the HP 58 Photo Inkjet print cartridge on HP Premium Plus Photo papers.

Rich and glossy photographs





# Key topic –

## Manufacturer's Recommended Selling Prices (MRSPs)

**As the title suggests, HP supplyline key topics are designed to provide you with a rapid briefing on essential questions in a quickfire FAQ format. In regular issues of HP supplyline, you can consult a range of key topics to find the answers you need - fast...**

### **Q. What are they?**

**A.** In summer 2003, HP introduced Manufacturer's Recommended Selling Prices (MRSP) for original HP printing supply material on a European level. These MRSPs provide a guideline for the channel and customers all over Europe on supply product pricing.

### **Q. Why are they important?**

**A.** They provide a guideline for partners and customers alike. They support HP channel partners' pricing in European countries and enable partners like you to pass this recommendation on to customers and to promote transparency on supplies pricing as part of their sales activities.

### **Q. Who needs to know about it?**

**A.** It is important that both you and your customers understand which prices are MRSPs. For you and our end users alike, HP strives to maintain price stability and this applies to MRSPs as it does to list prices.

### **Q. Where do I find out more?**

**A.** The MRSPs have been communicated on a monthly basis since July 2003 with the regular price list being sent out to HP's directly contracted partners. Second tier partners are able to download the MRSP from Connect Online. Retailers can also get a compact Retail MRSP list from their local Retail Account Manager.

**"...HP strives to maintain price stability..."**



# New Literature



Publication number	Description
5982-0984	HP no.11 inkjet print cartridge & printhead family datasheet
5981-9403	HP premium photo paper datasheet (c6059a, q2519a, c7040a, q1991a, q1992a, q5433a, q5434a)
5982-1120	HP large format supplies guide - autumn 2003
5981-0140	HP LFP marketing toolkit CD-ROM - fall 2003
5982-1437	HP opaque scrim datasheet
5982-1440	HP durable scrim datasheet
5981-9132	HP LF media swatchbook
5981-8645	HP pre-labelled media brochure

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to a dedicated website, providing you with relevant information  
that will help you grow your business.



## Top 10 strategic HP Inkjet print cartridges

p/n	description
51645AE	HP no. 45 black Inkjet Print Cartridge (42 ml)
C6578DE	HP no. 78 tri-colour Inkjet Print Cartridge (19 ml)
C6615DE	HP no. 15 black Inkjet Print Cartridge (25 ml)
C6578AE	HP no. 78 tri-colour Inkjet Print Cartridge (38 ml)
C6614DE	HP no. 20 black Inkjet Print Cartridge (28 ml)
C8727AE	HP no. 27 black Inkjet Print Cartridge (10 ml)
C8728AE	HP no. 28 tri-colour Inkjet Print Cartridge (8 ml)
C6656AE	HP no. 56 black Inkjet Print Cartridge (19 ml)
C6657AE	HP no. 57 tri-colour Inkjet Print Cartridge (17 ml)
C6658AE	HP no. 58 photo Inkjet Print Cartridge (17 ml)

## Top 10 strategic HP LaserJet print cartridges

p/n	description
C4096A	HP ultraprecise print cartridge, black
C4127X	HP ultraprecise maximum capacity print cartridge, black
C7115A	HP ultraprecise standard capacity print cartridge, black
C4092A	HP ultraprecise print cartridge, black
C8061X	HP maximum capacity smart print cartridge, black
92298A	HP standard capacity print cartridge, black
C3906A	HP LaserJet print cartridge, black
C4191/2/3/4A	HP color LaserJet toner cartridges, black, cyan, magenta, yellow
C9720/1/2/3A	HP color LaserJet smart print cartridges, black, cyan, magenta, yellow
C9700/1/2/3A	HP color LaserJet smart print cartridges, black, cyan, magenta, yellow

## Top 5 strategic HP small format print media

p/n	description
C6040A	HP premium photo paper, glossy - A4 (15 sheets, 230 g/m <sup>2</sup> )
C6832A	HP premium plus photo paper, glossy - A4 (20 sheets, 240 g/m <sup>2</sup> )
C1847A	HP photo paper, glossy - A4 (20 sheets, 175 g/m <sup>2</sup> )
C2936A	HP color LaserJet transparencies - A4 (50 sheets, 150 g/m <sup>2</sup> )
C6818A	HP brochure & flyer paper, glossy - A4 (50 sheets, 160 g/m <sup>2</sup> )

## Top 5 strategic HP large format supplies

p/n	description
C6036A	HP bright white inkjet paper - 914mm x 45.7m (90 g/m <sup>2</sup> )
C6035A	HP bright white inkjet paper - 610mm x 45.7m (90 g/m <sup>2</sup> )
C6020B	HP coated paper - 914mm x 45.7m (98 g/m <sup>2</sup> )
C6019B	HP coated paper - 610mm x 45.7m (98 g/m <sup>2</sup> )
Q1397A	HP inkjet bond paper - 914mm x 45.7m (80 g/m <sup>2</sup> )

## Top 5 strategic HP storage supplies

p/n	description
C5141F	HP DLTape™ IV data cartridge - 40 GB/80 GB
C7971A	HP ultrium 1 200 GB data cartridge
C5718A	HP DDS-4 150m data cartridge - 40 GB
C5708A	HP DDS-3 125m data cartridge - 24 GB
C7980A	HP SuperDLTape 1 data cartridge - 220 GB/320 GB



[www.hp.com/go/supplies](http://www.hp.com/go/supplies)

The full facts on available supplies for HP products: where to buy them, what's new, what questions customers ask...



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