

# THE TRUTH ABOUT INK

Save more. Print more pages.\*

**XL**



**HIT PRINT**  
INTELLIGENTLY

WHY SHOULD I CHOOSE HP?

WHY DOES INK SEEM PRICEY?

WHY DOES THE "LOW ON INK" INDICATOR APPEAR WHEN THERE MAY STILL BE INK LEFT?

WHAT IS HP DOING TO REDUCE THE COST OF PRINTING?

ARE ALL CARTRIDGES YOU COLLECT REALLY BEING RECYCLED?

Have you ever wondered why ink is sometimes perceived as costly or what exactly happens within the plastic casing of an inkjet print cartridge? What happens to cartridges after they are sent off to be recycled and how can you be sure that you are getting the best quality output from your HP printer? These are all valid questions we hear frequently; about the **cost of ink, the value of colour printing** and the **impact of inkjet printing on the environment**. There is a lot of talk about these topics in the media and a fair amount of misperceptions about inkjet printing, so we want to take a moment to consider your questions – whether you are printing at home or in the office – and **help dispel some common myths**.



If your question is not answered here, and even if it is, we encourage you to visit [www.hp.com/go/supplies](http://www.hp.com/go/supplies) to learn more about Original HP supplies.

I feel like I am under constant pressure to keep our family finances in check so I always look for the best value options for everything I buy. There are so many different choices when it comes to replacement inkjet cartridges and I've noticed that some are more costly than others. What is the reasoning behind the sticker price on an ink cartridge?

Cost considerations are of course top-of-mind for shoppers globally and HP recognises that, but when it comes to printing for your family or office, HP believes that true value means more than just the lowest possible sticker price on an ink cartridge.

We know there is a perception by some that Original HP ink is costly and perhaps not worth the investment. Some people look for cheaper alternatives like refilled cartridges (where ink is pumped back into a used cartridge), home refilling kits or remanufactured ink cartridges (this is where second-hand cartridges are repurposed by a third-party and refilled with ink, as opposed to recycled by the original manufacturer). The cheaper alternatives you see on the shelves of your local store may be either refilled or remanufactured.

While a lower price might seem like a good idea at first, **you should consider what it is that you are really paying for.** With refilled ink cartridges, you never know how many times they've been used or the quality of ink that was used to refill them. For example, research has shown that refilled cartridges have a higher failure rate than Original HP cartridges (failure refers to the cartridge being dead-on-arrival, leaking, streaking, or delivering less than 75 percent of the average page count for all cartridges tested for that brand and cartridge model).<sup>(1)</sup> **Your best safeguard is to educate yourself and know what to look for to ensure that you are getting the best value, which is not necessarily the cheapest sticker price.**

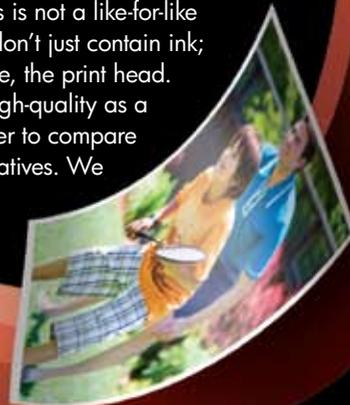
It may be tempting to compare ink with other luxury liquids (like champagne or perfume), however comparing ink cartridges with luxury liquids is not a like-for-like comparison. It is important to remember that inkjet cartridges don't just contain ink; they also contain sophisticated printing technology, for example, the print head. Both the ink formula and the print head are engineered to a high-quality as a result of many years of research and development. So, it's better to compare the performance of Original HP inkjet print cartridges to alternatives. We have some tips to help you evaluate the choices on page 8.



Many people are not aware of the technology packed into Original HP inkjet print cartridges. It's commonly assumed that all of the intelligence is in the printer itself. **Here are a few things you might not have known:**

- The cartridge design – and the functions that design enables – are key to the output **quality and reliability** of the whole printing system.
- Up to 100 chemists work on Original HP ink formulations, often requiring many years of intensive research and development. HP scientists carefully select specific dye combinations to deliver the best image quality, image permanence and durability.
- Original HP inks deliver unique colours with up to **72.9 million possible colour combinations** for more realistic colour transitions for life-like colour prints.
- Did you know that impurities in the ink reservoir as small as 0.001 percent can reduce image quality and clog print heads? The naked eye can identify errors in dot placement as small as 4/10,000 of an inch which can produce inadequate print results.
- Using Original HP inks, with HP Advanced Photo Paper for optimum results. Printing with Original HP photo ink and HP Advanced Photo Paper in combination can help resist damage from moisture and everyday handling, too.

<sup>1</sup> A QualityLogic 2010 study compared Original HP inkjet print cartridges (45, 78, 56, 57, 339 and 344) with refilled ink cartridges sold in Europe. Results show that Original HP ink cartridges produce significantly more printed pages and perform more reliably than refilled ink cartridges. For details, see <http://www.qualitylogic.com/2010hpinktestemea.pdf>



If I don't bring down costs and find new ways for my customers to save money, I would go out of business. Obviously, there is a big difference between my business and HP, but I'm curious, what is HP doing to reduce the cost of printing? For small business owners like me, every penny counts. There is fierce competition, what value does HP have to offer?

HP understands the varied printing needs of all our customers, whether a small business owner like you, a busy family or a growing enterprise. To help you make smart choices about printing and costs, HP has created a **portfolio of cartridge offerings** with various price tags for you to choose from.

Over the years HP has continually provided cartridge options offering the best value based on the needs of some of our customers. In 2005, we launched individual colour cartridges and more recently, launched XL cartridges to provide those who print more frequently with even more choice and value. Here are some of the products HP offers that can help you save money:

- **High yield cartridges:** HP offers optional high-capacity value (XL) cartridges that typically offer 2 – 5 times more prints for black inkjet cartridges and 2 – 3 times more prints for colour inkjet cartridges compared with standard Original HP ink cartridges.<sup>(1)</sup> With these cartridges you can also get up to 50 per cent lower cost-per-page than with Standard cartridges.<sup>(2)</sup>
- **Multi and combo ink packs:** inkjet cartridge multi-packs offer savings of up to 20 percent over buying ink cartridges separately.<sup>(3)</sup>
- **Individual ink cartridges:** allows customers to replace only the colour that needs replacing.
- **Photo Value Packs:** Save on ink and paper with the photo value pack which combines ink cartridge and high quality HP Photo Paper, over buying ink cartridges and speciality photo papers individually.

<sup>1</sup> Compared with Original HP 364 Standard Black and Colour Photosmart Inkjet Cartridges. XL cartridges not included in the box; to be purchased separately.

<sup>2</sup> Based on comparison of cost per page of HP 350 vs. 350 XL cartridges. Cost per page has been calculated based on HP recommended resale price and HP published page yield. Actual prices may vary. Actual yields vary based on printer used, images printed and other factors. (See: [www.hp.com/go/learnaboutequipment](http://www.hp.com/go/learnaboutequipment)). Results for other cartridges will differ. For more information see [hp.com/uk/supplies](http://hp.com/uk/supplies)

<sup>3</sup> Savings based on comparison of HP recommended street prices and page yield of one HP Standard Original ink cartridge; actual yields vary based on printer used, images printed and other factors. Go to [hp.com/go/pageyield](http://hp.com/go/pageyield) for details.



I consider myself to be a savvy shopper but, when it came to choosing an inkjet printer for my kids to use for homework projects, I saw that there were so many different options to choose from I didn't know where to start. I want to make a good choice so what sort of things should I consider? What questions should I ask?

Here are a few things that will help you to evaluate your family's printing needs and narrow the choices in order to make the best decision:

- How long do you plan to own the printer?
- What you and your family or business will want to print – i.e. text, graphics, photos, web pages, etc
- The frequency and number of pages you will print
- Any other factors like desired output quality, paper that will be used and whether you're likely to print in black and white or colour

The important thing for you to consider is what we call the **"true cost of printing"**. It's easy to try and gauge the cost of printing by looking at the price tag of the printer, the cost of replacement ink cartridges or the cost per page (CPP) claimed by the manufacturer. But, we recommend that focusing on any single factor is not a great way to accurately evaluate the true cost and you may end up paying more for printing in the long-term.

When considering different inkjet cartridge options, you should look out for the **"page yield"** of an ink cartridge. That is the number of pages you can print with a given printer and cartridge, based on certain assumptions. Only Original manufacturers like HP indicate this on their packaging; **not all refillers provide this information**. Page yield data and more information about page yield research for inkjet printing systems can be found at [www.hp.com/go/pageyield](http://www.hp.com/go/pageyield).<sup>(1)</sup>

<sup>(1)</sup> Data available for all HP Deskjet, Photosmart and Officejet inkjet printers and all-in-ones sold since July 2005, based on ISO testing methodology (ISO/IEC 24711), which is the standard body recognised by the majority of the industry. Page yield information is also available for HP Lasers.

My husband recently bought some refilled ink cartridges online. He said that they were cheaper than Original HP cartridges and reasoned that refills must be better for the environment. We bought an HP Photosmart printer so I could print family photos at home, and would feel much better printing with ink I can trust. Why doesn't HP sell refilled cartridges?

You might be tempted to experiment with refilled cartridges, however, we are confident that you will ultimately find that Original HP ink supplies **deliver more value per page and better fit your needs in the long-run**, especially if you are printing valued family photos or important business documents. You might notice that print quality and reliability dwindle when you use refilled cartridges;<sup>(1)</sup> this is because we design and test our printers, inkjet cartridges, toners and papers to work together to provide the best possible output.

With Original HP inks, you always get an unused, brand new cartridge. These are rated higher and outperform refilled ink cartridges on page yield (the number of pages it prints), and reliability<sup>(1)</sup>. Because Original HP ink cartridges aren't reused, you can be sure that they will live up to your expectations. This is also why we don't refill our own ink cartridges; **refilled cartridges are proven to be unstable and non-dependable**.<sup>(1)</sup>

Some common reliability issues<sup>(1)</sup> with refilled or remanufactured inkjet cartridges including leaking and streaking. More than 15 per cent of all the refilled ink cartridges tested in a recent independent reliability study leaked, streaked, or failed either during use or right out of the box.<sup>(1)</sup>

But, make no mistake; HP is **committed to environmentally responsible recycling solutions globally**. Since 1991 HP has invested in the HP Planet Partners return and recycling program, which enables simple, convenient recycling of Original HP inkjet and LaserJet supplies across more than 50 countries, regions and territories worldwide.

<sup>(1)</sup> A QualityLogic 2010 study compared Original HP inkjet print cartridges (45, 78, 56, 57, 339 and 344) with refilled ink cartridges sold in Europe. Results show that Original HP ink cartridges produce significantly more printed pages and perform more reliably than refilled ink cartridges. For details, see <http://www.qualitylogic.com/2010hpinktestemea.pdf>.





I'd like to ask about HP's environment program. I bought an HP Photosmart printer recently and was pleased to learn about HP Planet Partners. What does "closed-loop recycling" mean? Are all cartridges you collect really being recycled? I am under the impression that a lot of cartridges end up in incinerators or similar. And does this have an impact on the value of my printing?

The HP Planet Partners program is an environmentally responsible way for you to dispose of your used HP print cartridges. We've recently achieved a major milestone; to date, HP has produced 1 billion Original HP ink cartridges containing post-consumer recycled material from plastic bottles and ink cartridges through its "closed loop" inkjet cartridge recycling process, the industry's first and only such innovation.

"Closed loop" means that cartridges returned through HP Planet Partners, combined with post-consumer recycled plastics such as water bottles, are used in the production of new Original HP inkjet print cartridges – closing the design loop and keeping plastics out of landfills. Because all HP inkjet cartridges and LaserJet toner cartridges returned to HP are recycled through HP's state-of-the-art processes, **you can be sure that your inkjet cartridges are recycled responsibly** and won't end up in a landfill or incinerator.

HP has made this process very simple for consumers. When your HP inkjet or LaserJet print cartridge is empty, you can return it for recycling by visiting authorized retail recycling locations. Or you can visit [www.hp.com/recycle](http://www.hp.com/recycle) for free postage paid return envelopes, bulk collection boxes and printable labels.

On a daily basis I print menus, activity schedules, maps and directions for my bed & breakfast business. I want to start printing my own special event flyers and brochures for events and wedding services, but isn't it expensive to print in colour? What benefit will printing in colour really have on my business?

**Colour printing is no longer an expensive luxury.**

Quite the opposite, printing marketing materials, flyers, brochures and documents for your business in bright, vivid colour can have a direct impact in the customer experience and perceived value of your brand or business. People respond emotionally to colour; you want to draw people into your business environment before they even walk in the door and you can do that with printed colour documents and clever design.

We can appreciate that the reliability of colour reproduction is critical to colour printing. Original HP inks deliver unique colours with up to 72.9 million possible colour combinations for more realistic colour transitions for life-like colour prints. Printing with HP photo ink and HP Advanced Photo Paper in combination can help **resist damage from moisture and everyday handling, too.**

Whether you are printing photos, menus, proposals, brochures or note cards, you can do so with the knowledge that HP scientists have carefully developed and tested the specific technology to deliver the best image quality, image permanence and durability.



My question is about the "low on ink" alert. The alert came on as I was printing a document at work recently, but I just installed a new set of cartridges a few months ago. How could I be out of ink already? The cartridges still have ink left, so why does the "low on ink" alert appear before the cartridge is really low on ink? Is HP trying to get me to spend more money?

We designed the "low on ink" alert ("LOI") as an added benefit to help you know that your ink supply is running low **before you start experiencing poor print quality** due to low ink levels. If you checked your printer manager software, you might have seen that the ink levels were OK and that the printer was not already out of ink. Think of it in the context of your car's fuel gauge. You wouldn't wait until you were out of fuel to refill your petrol tank. This is a signal to say you should think about having a replacement cartridge ready to go. With HP Photosmart single function and all-in-one printers you can continue to print until you choose to replace the cartridge.

The "LOI" alert is not designed to get you to buy more ink; we are aware that our pre-emptive alert system can result in the perception that the "LOI" message appears too early and is inaccurate. The amount of ink left in the cartridge will vary based on cartridge variation, usage and a host of other factors. This is reflected in the ink levels, especially if you have not been using your printer on a frequent basis. With this kind of start/stop printing, inkjet printers use some ink to keep print nozzles clear and ink flowing smoothly. This is really important to maintain the health of your printer and the quality of your prints. However, it can cause cartridge yields to be lower than expected. On the other hand, the opposite is also true – frequent use of the printer can mean that the cartridge yields better than average.

Another benefit of the HP system is that that pre-emptive alert gives you time to **have replacement cartridges ready.**

I'm an IT manager for a technology start-up. As part of my job, I make decisions about what technology we will use across the business. I like HP as it is a company with a long heritage in the technology industry. What is HP contributing to the inkjet printing market through research and development and how does that impact the value of your products for me?

You're right, HP is a company with a long heritage in the technology industry; we were founded in 1939 in a garage in Palo Alto, California. HP has been in the **inkjet printing market for more than 20 years and is committed to providing the best printing experience for customers the world over**. That commitment requires continual innovation. That's why – amongst its competitors – HP continues to dedicate the most research and development to developing superior print systems.

When taking into account the science and innovation involved in developing ink technology, along with the significant resources HP devotes to bring solutions that meet a variety of customer needs to market, we recognise that time and effort are needed to consistently produce reliable printing and quality prints.

Here are some facts you might find interesting about HP's commitment to R&D:

- **Inkjet technology research began at HP Labs in 1978**. Although large, industrial inkjet-marking devices already existed, they weren't suitable for document printing needs.
- By miniaturizing the technology and offering it in the form of a personal printer, HP was able to **launch the first inkjet printer in 1984**, offering better print quality than serial dot-matrix printing.
- HP continues to reach milestones in consumer printing bringing to market new innovations in printing systems. In 2010, HP was first-to-market with web enabled printing, offering its revolutionary HP Photosmart Premium TouchSmart Web All-in-One printer.<sup>(1)</sup>
- HP has introduced more than **100 different inks in the past 20 years** to meet the different needs of its customers.
- HP invests up to **3-5 years to develop and manufacture just one new line of ink**.
- All inks are subjected to more than **20 different tests** for purity and more than 50 different tests for quality attributes such as water resistance, fade resistance and colour accuracy.

<sup>(1)</sup> Availability and street pricing may vary by region.

- More than **50,000 engineer and scientist hours** are typically devoted to developing each final ink formulation
- Over the past decade, HP has continued to **reduce the cost of printing** while increasing the output efficiency.





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