

# PRINTER INK: THE TRUE COST

**£5.36**  
CHEAPEST PRICE  
FOR A PRINTER  
BRANDED CARTRIDGE



**£3.20**  
CHEAPEST PRICE WE  
FOUND FOR A THIRD-  
PARTY CARTRIDGE

Which? probes the inky depths of printer cartridges to reveal the real cost of printer ink, and how non-branded printer inks could save you a packet

**P**rinter ink is big business. The UK spent more than £650 million on ink cartridges in 2009 according to research company IDC. And with the cost of a replacement set of cartridges more expensive than buying an entirely new printer in some cases, it's no surprise that many of us want cheaper alternatives when the printer runs dry.

That's where third-party ink makers come in. They offer cheaper alternatives to ink cartridges from the likes of Canon, Epson, HP and Lexmark, known as Original Equipment Manufacturer (OEM) cartridges.

The result has been a cat-and-mouse game between third-party ink makers and big printer brands, involving developing technologies, thousands of intellectual patents and the occasional legal action, in a bid to dominate the printer ink market. Yet with only around one third of the Which? members we surveyed opting for non-OEM over branded cartridges, it looks like the printer manufacturers are winning. So why aren't more of us choosing cheaper options?

### RISKS OF NON-OEM INK

Using ink that isn't from the same brand as your printer may be seen as a risk rather than a money saver by some, who fear that using them may affect their printer's warranty or produce poor-quality prints. Yet our lab tests have found that some non-OEM inks produce decent-quality prints (see p68) – and using them may not invalidate the warranty of your printer.

PHOTOGRAPHY BY PIOTR GREGORCZYK

We asked you to share your experiences of using third-party inks and received more than 200 responses. More than 70% of you said you are happy using them.

### WARRANTY WOES

Just as a printer brand wants you to be locked in to buying its ink, the third-party ink makers like JetTec and Cartridge World – the two brands we received the most responses about – want to keep your business too. These companies wouldn't survive long if their ink cartridges damaged your printer. So does using a third-party cartridge really invalidate your printer warranty?

In some cases, the answer is no. While Epson, HP and Lexmark said that the cost of repairing a damaged printer may not be covered by the warranty if the fault is attributable to using non-OEM ink, Canon broke ranks. It told us that using third-party ink would not invalidate the warranty, but advised that using Canon products avoids any possibility of printer nozzles clogging.

However, for many, the warranty issue might not be a problem in practise. The design of non-OEM inks and cartridges must be different to the originals (to avoid infringing on patents), so they take longer to reach the market. The warranty period on your printer could have expired by the time the non-OEM ink for it becomes widely available.

### PRINTER SAYS 'NO'

Another concern with non-OEM cartridges is that the printer may refuse to run with them. Many OEM cartridges have microchips that the printer uses, for example, to monitor ink levels in the cartridge. They may also be used to help a printer recognise an OEM cartridge, though.

Third-party ink manufacturers have found ways to overcome this, but acknowledge that non-OEM cartridges do fail to work from time to time. They say the failure rate is low: the highest claimed was 2%. Despite this small percentage, it can still feel like a gamble.

In our random test of four non-OEM inks in HP and Epson printers, the yellow cartridges from one supplier failed to work. If that happens to you, you shouldn't be left out of pocket – see our Expert View, right, for your rights.

### WHY IS INK SO COSTLY?

The big-brand printer manufacturers' responses to this question can be summed up in three words: research and development. HP told us that a new ink system can take three to five years to be developed, while Canon's spokesperson said: 'We have invested more than 9% of sales in research and development annually over the past two years.'

But are printer makers actually compounding the problem? The managing director of third-party cartridge supplier JetTec, John Studholme, seems to think so, claiming: 'Manufacturers sell their printers too cheap.'

Like the razor blade business, the equipment – the razor – is seemingly low in price for what it is, but the replacement blades are expensive by comparison. In the printing world, for example, the Canon iP2702 can be bought for £34.19, but the cheapest price we found for a set of cartridges for it was £28.98.

This seems to be the case for other printer manufacturers as well, with the possible exception of Kodak. Its 'Print and Prosper' campaign centres around the fairly inexpensive retail price of its cartridges.

Kodak inks are reasonably cheap – around £7 for standard-capacity black and £10 for the

### A FAIR PRICE?

The prices of some branded cartridges may make your eyes water, however, Which? thinks that regulators like the OFT are unlikely to take issue with the way the market works and how cartridges are priced.

Competition in the market means that there are plenty of printer and cartridge brands to choose from – none of which we think would be considered to have enough of a majority share to

spark an investigation. Price is another factor. Retail prices for most OEM cartridges differ from one retailer to another, and throughout the year, so consumers can shop around to get the best price – there doesn't appear to be any issue with price collusion.

Many manufacturers take out patents on their cartridges and inks. Although a patent prevents others from replicating the design, a patent is

EXPERT  
VIEW

YOUR INK RIGHTS



**What are your rights if third-party cartridges you have bought don't work, or worse, break your printer?**

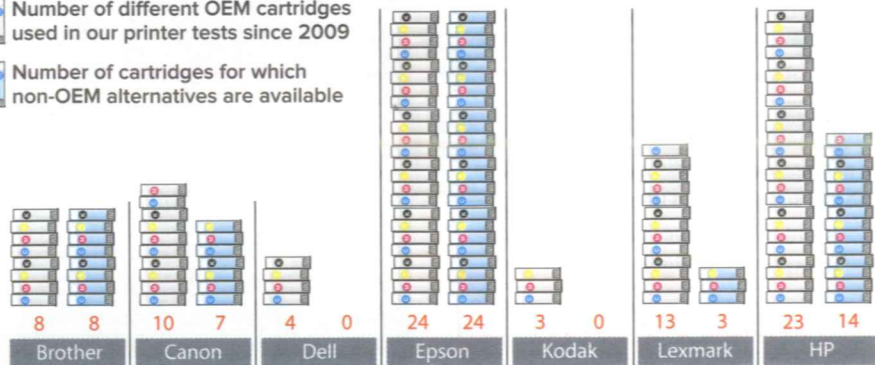
The Sale of Goods Act 1979 states that goods must be 'as described' of 'satisfactory quality' and 'fit for purpose' – if they aren't, then the seller will be in breach of contract. They can't blame the manufacturer; the buck stops with the seller. On recent purchases, you can ask for a replacement, or your money back. If you've had the cartridge longer, you can still get a replacement, but a refund will depend on the circumstances, eg if a replacement would have the same issue.

The seller could also be liable for any damage the cartridge caused to your printer. The seller may try to suggest that it was the way you installed the cartridge, or that a problem with your printer was to blame; as long as it is less than six months from when you bought the cartridge, the onus will be on the seller to prove the cartridge wasn't to blame rather than you having to show that it was. If the problem is down to the cartridge, you could claim from the seller the cost of getting your printer fixed.

PETER MCCARTHY  
WHICH? LEGAL EXPERT  
[www.whichlegalservice.co.uk](http://www.whichlegalservice.co.uk)

### Availability of third-party ink

- Number of different OEM cartridges used in our printer tests since 2009
- Number of cartridges for which non-OEM alternatives are available



### Ink running costs for 10 colour pages, plus print quality

Epson Stylus SX215

HP Deskjet F2480



## FINDING THIRD-PARTY INKS

Since 2009, we've tested nearly 90 inkjet printers that are still available today using 85 different cartridges. We've searched five commonly used third-party ink suppliers – Cartridge World, Choice Stationery, IJT, JetTec and Tesco – for alternative inks. We've found alternatives for 65% of those cartridges, see details, left.

If a brand's market share is small, or cartridges are new, you're less likely to find a third-party alternative. Third-party suppliers told us that the chips on HP 364XL cartridges have made it difficult for them to come up with a workable alternative just yet, and while Lexmark's 'return programme' inks can't be refilled, those marked with an 'a' on the packaging usually can.

Many Epson printers are compatible with more than one set of OEM ink – for example, the Epson Stylus SX515W printer will work with both Epson's 'Rhino' and 'Cheetah' inks. So if you're searching for third-party ink, it's better to search online using the printer model, not the cartridge code.

tri-colour cartridge – and all of their printers use the same cartridges. However, a low price tag on an ink cartridge doesn't necessarily mean cheaper running costs. The true value of a cartridge is how many prints you get for the price you pay.

### THE TRUE COST OF PRINTING

The home-printer's dream is a high volume of decent-quality prints from a cheap cartridge. Finding out how many pages a cartridge will print for your money may seem a tough task, but there is information available that can help.

Aside from the printer ink running cost tests we carry out at Which?, the industry standard developed by manufacturers – ISO/IEC 24711 – compares cartridges for the number of prints they produce.

Manufacturers are under no obligation to state ISO page yields. This information is actually displayed on the packaging of many printers, but it's not always easy to spot and it's not always clear whether the page-yield figures

come from an ISO test. We're contacting manufacturers to encourage them to display this information more clearly to help all of us make an informed decision about which printer to buy for cheaper running costs. ISO-yield information doesn't help when it comes to deciding whether non-OEM ink is cheaper – only OEM page yield would be displayed on a printer's packaging.

Some manufacturers list ISO page yields on cartridge packaging, but they are only approximate – the same cartridge can often be used in different printers, which may produce slightly different yields.

For a true running cost comparison, you need to factor in cartridge price and this varies from store to store. The three third-party inks that we managed to get working in our HP and Epson test printers for this report (see above), prove that price is key. Non-OEM proved cheapest of all, but unexpectedly, Epson's standard-capacity cartridge produced cheaper prints than its high-capacity one

because we found the standard-capacity cartridge selling at a low price.

We scoured 12 online and high street retailers to find the cheapest OEM cartridge prices and compared them to five third-party ink retailers' prices. Third-party cartridges ranged from being 57% cheaper to 75% more expensive than the cheapest price for the OEM cartridge. So whether you're buying OEM or non-OEM, it's important to shop around for a good price. Buying online is usually cheapest – look for retailers offering free delivery.

With the feedback we've received from members, there's no denying that people find ink expensive and that many of you are happy with the quality of prints you get from the third-party inks you try.

If your printer isn't brand new and you want to save some money, we think non-OEM ink is worth a shot – you have little to lose. And should a problem arise, don't forget your rights (see p67).