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Stung

Refill ink for HP cartridges

Even if the printer was a bargain, every ink cartridge is a costly purchase. But for HP printers, there are no real alternatives and only if you fill your own ink cartridges, can you really save on printing costs. But not all of the numerous types of refill ink products available are worth the money.

For many years now, all Hewlett Packard Deskjet and Photosmart series printers have featured no. 56 (black), no. 57 (cyan, magenta, yellow) and no. 58 (photo cyan, photo magenta, photo black) PhotoRET IV cartridges. A good dozen multi-functional devices also use these inks. As a consequence, the number of devices in Germany, whose thirst for ink can only be quenched by the manufacturer with its high-priced cartridges, is approaching millions – a lucrative business with a stable high turnover. Because the print head is

integrated into the disposable cartridges, it is subject to many international patents, which means reproductions – unlike with Canon or Epson ink tanks – are out of the question.

For older model HP cartridges, there are still numerous recycled i.e. refilled cartridges available, which are much cheaper than the new cartridges from the manufacturer. But no well-known supplier will dare take on the environmentally and wallet friendly recycling for PhotoRET IV type cartridges – and with good reason, as confirmed in this test.

The filigree print heads – “Intended for single use only” according to the label – are highly sensitive. First of all, they don't like dry-runs because the ink is used as a coolant for the thermo print head and its absence sharply reduces the life of the semiconductor elements.

Refill manufacturers cannot give any prognosis on the lifespan of the cartridges they refill and resell. There are also no DIN or ISO quality seals to help, which some suppliers like to use to distinguish their products. Because even if a cartridge is printing very well one day, that can change completely the next. Making big savings on printing costs for current HP printers therefore means using nozzles and needles.

Filling the cartridges with ink yourself yields great advantages. You get your own cartridges, which you use carefully and therefore up to their maximum lifespan. And the saving factor is immense. The drawback is that the refill method requires a little skill and practice and is not as easy as buying the ready-to-use cartridges.

And of course you need the right material, above all the right ink. However this you should be able to find with the help of this article.

InkTec

The ink from the Korean supplier presented us with no difficulties and filling the cartridges was not problematic either. After some small teething problems, it was also possible to print without any problems and the print-outs using this ink, as with Enderlin, were of a quality that gave no reason for rejection in favour of the original.

The Inktec black ink at just under 25 cent per millilitre

is the most expensive. In contrast, the color ink is at the lower end of the price scale at 17 cent and 20 cent for photo ink. In addition to the high quality, we also liked the cartridge stickers that Inktec provides, with the help of which it is very easy to find the correct filling holes. From the whole test range, the InkTec ink comes closest to the standard of the original, last but not least with its light resistance, from which not too much could be expected considering the weakness of the original.

Conclusion

The test showed that with

some inks it was relatively easy to reach a printing quality completely equal to that of the original ink of HP's top model. The Enderlin ink fared best on the reasonably priced Classic One photo paper from Pearl. Inktec came closest to the original on the HP paper. The Compedo ink had the highest light resistance with print results equally close to the original.

However the products in the low-cost plastic vials would best be avoided, as although they gave some usable results, the overall

impression of this ink was of complications.

But even the consistent refill user does not get out of buying the occasional original cartridge. These should be used carefully and most importantly refilled in good time, before the ink runs out. With good maintenance, it is possible to get three or four refills from one cartridge and in this way reduce the printing costs to much less than half without loss of quality. (tig)

Color deviation on HP paper				
(In comparison to HP ink on HP paper)				
	Average color deviation (ΔE)	Max. color deviation (ΔE)	Min. color deviation (ΔE)	Mean squared color deviation (ΔE)
	← better	← better	← better	← better
Compedo	12,79	22,38	3,85	4,33
Databecker	2,79	5,5	0,27	1,12
Dr. Inkjet	15,2	30,81	1,87	6,22
Duocolor	18,78	34,69	4,46	6,96
Enderlin	2,95	5,97	0,91	1,17
InkClub	7,39	16,57	2,55	2,92
InkTec	2,25	7,02	0,22	1,37
W&W	5,15	12,86	0,42	3,02

Color deviation on Pearl-Paper				
(In comparison to HP ink on HP paper)				
	Average color deviation (ΔE)	Max. color deviation (ΔE)	Min. color deviation (ΔE)	Mean squared color deviation (ΔE)
	← besser	← besser	← besser	← besser
Compedo	11,16	21,13	2,33	4,32
Databecker	3,66	8,15	0,6	1,71
Dr. Inkjet	17,96	54,82	3,11	8,44
Duocolor	18,68	52,18	3,54	9,94
Enderlin	4,16	8,51	1,41	1,37
InkClub	9,24	33,75	2,34	5,03
InkTec	2,9	9,64	0,3	1,8
W&W	7,62	16,19	1,59	3,68

Color deviation on Pearl-Paper*				
(In comparison to HP ink on HP paper)* see text				
	Average color deviation (ΔE)	Max. color deviation (ΔE)	Min. color deviation (ΔE)	Mean squared color deviation (ΔE)
	← besser	← besser	← besser	← besser
Compedo	17,78	30,68	0,87	6,78
Databecker	8,89	13,49	4,6	2,13
Dr. Inkjet	12,16	53,59	1,16	8,8
Duocolor	24,88	50,55	8,83	8,69
Enderlin	5,97	9,18	3,76	1,01
HP-Tinte	7,86	11,93	2,51	2,56
InkClub	9,36	35,26	3,96	5
InkTec	8,51	13,29	4,1	2,11
W&W	8,23	14,78	3,94	2,04

Ink Cost				
[Cent/ml]	Black	Color	Photo	Mean Squared
	← better	← better	← better	← better
HP	116	182	181	165
Compedo	24	31	30	29
Databecker	17	22	22	21
Dr. Inkjet	12	17	17	16
Duocolor	14	17	23	18
Enderlin	18	22	22	21
InkClub	85	156	106	120
InkTec	25	17	20	20
W&W	19	20	20	20

Nachfülltinte – Checkliste				
Anbieter	HP	Compedo	Databecker	Dr. Inkjet
Bezugsquelle	Fachhandel	www.compedo.de	www.databecker.de	www.hamburg-mk.de/
Liefermengen und Preise				
Schwarze Tinte	Patrone Nr. 27 (C8727A) mit 10 ml 17 € Patrone Nr. 56 (C6656A) mit 19 ml 19 €	Packung 6656A30U mit 125 ml 29,90 €	Packung H9 mit 120 ml 19,95 €	Flasche 100 ml 13,99 €
Farbtinte (Cyan, Magenta, Gelb)	Patrone Nr. 28 (C8728A) mit je 2,66 ml 20 € Patrone Nr. 57 (C6657A) mit je 5,66 ml 31 €	Packung C6657A40 mit 3x40 ml 36,80 € einzel 125 ml je 28,90 €	Packung H7a3x30 ml 19,95 €	Packung 3x50 ml 24,90 €
Fototinte (Gran, Magenta, Schwarz)	Patrone Nr. 58 (C6658A) mit je 5,66 ml 23 €	Packung C6658A40 mit 3x40 ml 35,80 € einzel 125 ml je 31,90 €	Packung H12 3x30 ml 19,95 €	Flaschen Fotocyan und Fotomagenta 50 ml je 8,50 €
Bewertungen				
Text/Grafik				
Foto				
UV				
besten je	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4

Duocolor	Enderlin	Inkclub	InkTec	W&W
www.duocolor.de	www.enderlin.com	www.inclub.de	www.ink-tec.de	www.tintenversandhaus.de
Flasche 50 ml 8,49 €; 100 ml 13,99 €	Flasche 50 ml 11,73 €; 100 ml 17,49 € 200 ml 26,87 €	Patrone Nr 56 mit 19 ml 16,17 €	Packung mit 2x20 ml 19,95 €	Flasche 100 ml 18,90 €
Packung mit 3x30 ml 15,98 € 3x50 ml 22,99 € einzel je 50 ml 8,99 € Flaschen je 50 ml 11,50 €	Flaschen je 50 ml 10,92 € 100 ml 15,98 € 200 ml 24,30 € Flaschen je 50 ml 10,92 € 100 ml 15,98 € 200 ml 24,30 €	Patrone Nr 57 mit je 5,66 ml 26,56 € Patrone Nr 58 mit je 5,66 ml 18,05 €	Packung mit 3x25 ml 12,95 € Packung mit 3x25 ml 14,95 €	Packung 3x30 ml 18,90 € 3x50 ml 29,95 € Packung 3x30 ml 18,90 € 3x50 ml 29,95 €
-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4	-4 -3 -2 -1 0 1 2 3 4