

How to refill Kyocera FS-C5100DN

Can be used with starter cartridges (arrive with new machine) and bought cartridges.
Before use, familiarise yourself with the safety information and melting tool guidance on pages 3 and 4.
Consider doing the refill on top of sheets of old newspaper in case of accidental spills.

Continue printing at "Toner low C, M, Y or K" message
Refill only at "Replace toner C, M, Y or K" message

How to refill it

 <p>The image shows the printer's LCD panel. At the top, it says 'Ecosys S-C5100DN'. Below that is the website 'urefilltoner.co.uk'. The main message on the screen is 'Replace toner' with 'M' below it. To the right of the screen are three indicator lights: 'Ready' (grey), 'Data' (yellow), and 'Attention' (orange). At the bottom of the panel, the phone number 'UK 0121 448 3561' is displayed.</p>	<p>Refill when you get this message on printer LCD panel. As a check, notice that the machine will refuse to print at this point.</p> <p>Do not refill in response to another other condition or message.</p> <p>Only refill the colour indicated in this message (DO NOT "top them all up, while you're at it).</p>
 <p>The image shows a close-up of a blue cartridge. A circular hole has been melted into the top surface. The word 'REMOVE' is embossed above the hole, and 'SET' is embossed to the right. Below the hole, there are some Japanese characters and the number '5~6'. The website 'urefilltoner.co.uk' and the phone number 'UK 0121 448 3561' are overlaid on the image.</p>	<p>Melt hole in position shown.</p> <p>Pour refill toner in holding cartridge at approx. 45 degree angle.</p> <p>Clean surfaces around hole with alcohol swab.</p> <p>Allow alcohol to evaporate.</p> <p>Seal with any tape that's wide enough (duct or "Gaffa" tape, like the 4 patches supplied with this kit, is best). Press firmly onto flat surface around hole .</p> <p>Observe tape every now and then. If any toner is escaping, clean and re-seal with new patch. Alternatively, tiny leaks can be sealed by smearing on a small amount of bathroom sealant.</p>
 <p>The image shows a page from an 'Education Catalogue' for 'U Refill Toner Ltd' for the months of 'May - August 2011'. It includes contact information: 'Written orders: Fax 0121 248 7842 email helpdesk@urefilltoner.com or post to: U Refill Toner Ltd., 303-305 Telsen Centre, Thomas Street, Birmingham, B6 4TN'. A note states 'Monthly Education credit is already in place for your establishment'. The website 'urefilltoner.co.uk' is prominently displayed. At the bottom, there is a reference to a study by Gell, 'Carbon Footprints and Ecodesign of Toner Printer Cartridges', which compares the carbon footprint of refilling a cartridge versus buying a new one.</p>	<p>After refilling black cartridge for first time print quality may look something like this. Do not panic! It clears up after about 20-30 prints.</p> <p>This background scale and/or splodges of toner are caused by incoming toner mixing with any original toner still in the printers system.</p> <p>Only seen when refilling any black cartridge for the first time. Subsequent black refills and all colour refills do not exhibit this.</p>

Optional: change chip at "Replace toner" message to restore Kyocera-style toner status behaviour

Status can be viewed by scrolling LCD menu or by printing Status Page.

The 4 bars indicate 0% - 100% toner present. Note that bands are inaccurate or missing if you refill without changing the chip. However, you can keep printing indefinitely – just bear in mind that "spent" chips and their corresponding bars will bear no relation to the physical quantity of toner present.

Consult your PDF manual for more information on how to get status readings from the machine.



Remove old chip as shown



Peel off self-adhesive backing from compatible chip handle at edges and stick into position

Use and safety of the melting tool



The tool needs at least 5 minutes to reach an efficient melting temperature.

To melt a hole, apply a light force similar to pressing on paper with a ballpoint pen. Ease off the pressure as the tool sinks into the plastic.

During the first 6 minutes of the first ever use, smoke will come out of the heated part of the tool as manufacturing lubricants burn off. This is normal.

Use a screwdriver to push out the residual plastic plug while the tool is still hot.

Occasionally, the plastic plug falls inside the cartridge. Try and get it out using tweezers or pliers if you can. A piece of plastic this size

inside the toner compartment doesn't usually do any harm, but be aware that it's there and retire the cartridge if it shows signs of physically jamming.

Important safety information

- To be used only by a competent, risk-aware adult.
- Use only in a well-ventilated situation. As with the combustion of any organic substance (such as petrol or tobacco) a cocktail of gases can be produced and some of these are harmful or at least irritant.
- All metal parts of the tool get dangerously hot. Never touch any metal part of the tool, including the steel shaft near the plastic handle.

urefilltoner.co.uk
UK 0121 448 3561



- When not in hand, the tool is designed to be rested at an angle created by the flange of the handle, keeping the hot parts suspended above your surface. But take care that the power cable doesn't force the handle to rise and the hot end of the tool to dip.
- Take care not to melt through the tool's own electric cable.

- Do not use the tool with the end-piece or blank filler tip removed.
- Turn off and unplug the tool as soon as you've melted your hole. Leave to cool at least 2 metres away from your toner pouring area.
- Do not leave on for more than 30 minutes at a time.
- After use, allow the tool to cool down naturally. Do not immerse in water.
- Take all precautions for the use of a powered hand tool. Use eye and hand protection.

Assumption of risk notice

We ourselves have no hesitation in researching and refilling cartridges using the melting technique in a well-ventilated room. However, the company gives no warranties, neither explicit nor implicit, as to the safety of melting holes in toner cartridges or the use of the melting tool. Any activity or process has an element of risk. The onus is on you, the purchaser, to assess any possible risk, including the inaccuracy or incompleteness of currently available information. If you decide not to go ahead, return the product to us and we'll cheerfully refund your money. This offer is additional to your statutory rights.

©® Ownership of all intellectual property relating to the melting tool has been asserted and secured.

Safety Data

Not to be used by children. Avoid inhalation of product. Avoid eye and skin contact. Do not ingest. Avoid sources of ignition while pouring and at all times. Take maximum precaution when using tools as a lever. Consider safety and protection of eyes and hands from sudden slippage or unexpected freeing of the tool.

Hazards identification

Classification	Not believed to be classified as hazardous according to OSHA CFR 1910.1200 or EU Directive 1999/45/EC, as amended.
Acute health effects	
Skin contact	Unlikely to cause skin irritation
Eye contact	May cause irritation
Inhalation	Irritation to respiratory tract if exposed to large amounts of toner dust
Ingestion	Unlikely when used as intended. Acute oral toxicity is believed to be low
Potential health effects	
Routes of exposure	Skin contact, eye contact and inhalation. Ingestion unlikely.
Chronic health effects	Prolonged inhalation of excessive amounts of any dust may cause lung damage
Carcinogenicity	Carbon black is classified by IARC as a possible human carcinogen. Carbon black in this preparation is not thought to present this risk due its bound form.

First aid measures

Inhalation	Move person to fresh air. If breathing is difficult, obtain medical assistance
Eye contact	Flush with plenty of low pressure water for at least 15 minutes. Do not rub eyes. Remove contact lenses to ensure

	thorough flushing.
Skin	Wash with water, obtain medical attention if ill effects occur
Ingestion	Rinse out mouth with water. Drink one or two glasses of water. If large quantity swallowed seek medical advice

Fire fighting measures

Hazardous combustion products	Carbon monoxide and carbon dioxide
Extinguishing media	Water, dry chemical, carbon dioxide or foam
Special fire fighting procedures	Avoid inhalation of smoke. A self contained breathing apparatus and suitable protective clothing should be worn.
Unusual fire & explosion hazards	Toner is a combustible powder; formation of an explosive dust-air mixture is possible. Avoid all ignition sources if toner has been dispersed in air.

Accidental release measures

Spill/leak procedure	Sweep up or vacuum spilled toner and transfer into sealable waste container. Sweep slowly to minimize generation of dust. If vacuum is used, the motor must be rated as dust tight and safely applicable to the vacuuming of toner dust. Residue can be removed with soap and cold water. Garments may be washed or dry-cleaned after removal of loose toner.
Environmental precautions	Do not flush into surface water or sanitary sewer systems. Dispose of waste material in accordance with all applicable laws.

Handling and storage

Handling	Keep containers closed when not in use. Handle and open containers with care. Use with adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Keep away from sources of heat, sparks and open flames.
Storage	Store at room temperature in the original container. Keep container tightly closed and dry. Do not store with strong oxidizers.

Exposure controls and personal protection

UK exposure guidelines	WEL: 10mg/m3 (inhalable dust), 3mg/m3 (respirable dust)
Personal protective equipment	
Eye / face	Wear dust resistant safety goggles if there is danger of eye contact
Hands / skin	Wear protective gloves
Respiratory protection	Wear approved respirator for dust when exposure exceeds permissible limits
Additional measures	Use in a well ventilated area. Use engineering controls to reduce air contaminants to permissible limits. Wash hands after use.

Toxicological information

Oral toxicity	Acute oral toxicity is believed to be low. Not believed to be classified for acute oral toxicity according to EU Directive 67/458/EEC and 1999/45/EC
Inhalation toxicity	No data
Eye irritation	Not classified as irritant according to OSHA HCS and EU 67/548/EEC as amended
Sensitization	Not classified as sensitizer according to OSHA HCS and EU 67/548/EEC as amended
Chronic toxicity	No data
Carcinogenicity	Carbon black is classified by IARC as a possible human carcinogen. Carbon black in this preparation is not thought to present this risk due its bound form.
Mutagenicity	Negative (AMES test)
Reproductive toxicity	Not classified as toxic according to EU 67/548/EEC as amended

Notice. All safety information is given to help facilitate the safe use of this product and is based on information obtained from the manufacturer. This information is believed to be correct, but does not purport to be all-inclusive and shall only be used as a guide. U Refill Toner Ltd makes no warranty, express or implied, as to the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and / or compliance with local laws and regulations.

All information offered is believed to be true and is offered for consideration in good faith. However, U Refill Toner Ltd gives no warranties, neither explicit nor implicit as to the completeness or accuracy of any information offered nor the ultimate safety of refilling toner cartridges in any manner described or suggested nor the ultimate safety or hazardousness of products supplied by U Refill Toner Ltd. The onus is on the purchaser to evaluate all possible risk, including the possible incompleteness or inaccuracy of currently available information, and by proceeding to use the refill product or products, the purchaser thereby assumes all risk of peril or injury howsoever arising.

If you the purchaser decide not to go ahead with refilling for whatever reason, simply return the product or products to U Refill Toner Ltd and we will cheerfully refund your money. Your statutory rights are unaffected.

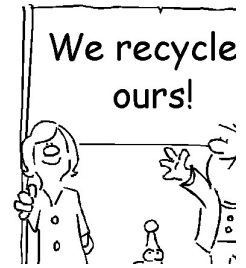
Please, tell three people what you've done



OK, we admit it. This is our begging act. Have you saved money by using our DIY kit? Did you feel a touch of pride as your cartridge *did* print again? Maybe you found some environmental satisfaction? Or perhaps you feel it should be refilled "because it's there".

We sincerely hope we've helped float your boat in some way. And if so, then please help our voice in the wilderness and tell at least three people about what you did with your empty cartridge. Why not send a link to urefilltoner.co.uk to some friends you know have printers?

The phrase "carbon footprint" hadn't been coined in 1992 when we started selling our trend-bucking "guerrilla re-cycling" products. Refilling with just toner **more or less halves CO₂** compared with making the toner plus the whole structure of a cartridge to put it in*.



We're asking for your support to create a kind of benign chain-reaction effect. Yes, we stand to make money from that, but we believe that the battle to reduce CO₂ output does have to be commercialised. That's to say, when the capacity of individuals to make voluntary self-sacrifice reaches a limit, what will take up the slack? In the same way that carbon big-foot companies need money to keep doing what they do, so does a carbon twinkle-toes.

Environmental organisations make us aware of a pyramid of priorities. **Re-use**, in the sense of directly using a resource again, is more beneficial than re-cycling (normally taken to imply an industrial process such as re-pulping paper fibre).

So, one last time for the planet, please advocate urefilltoner.co.uk if you feel our existence is preferable to our non-existence. Keep refilling in the free world.

*Sources:

Dr. M. Gell, "Carbon Footprints and Ecodesign of Toner Printer Cartridges", Xanfeon Energy & Environmental Services, UK, 2008. Dr. Gell calculates a 52% reduction in carbon footprint by refilling a cartridge 3 times and replacing the OPC drum once. We think the DIY refill case is even more favourable because the following carbon loads included in Dr. Gell's assumptions don't apply: manufacture/transport of replacement OPC drum, triple transport of empty cartridge to remanufacturing facility and energy consumed during remanufacturing at facility. In addition, the footprint of the delivery transport is smaller because toner weighs only a fraction of a whole cartridge.

Centre For Remanufacturing & Reuse (commissioning body), "The Carbon Footprint of Remanufactured Versus New Mono-toner Printer Cartridges". The authors conclude that, based on their data, a remanufactured mono (i.e. black & white laser printer) cartridge has a "46% lower carbon footprint than a corresponding new cartridge".

Berglind & Eriksson, "Life Cycle Assessment of Toner Cartridge HP C4127X", University of Kalmar, Sweden, 2002. The authors state (Abstract page I) that from the point of view of environmental load, "the re-use alternative is full measured two times better ...". Although they point out that the main environmental load is, in fact, associated with paper.

Refills by you ... thanks to you

Thanks for refilling the toner cartridges in your printer. We invented "do-it-yourself" toner refills in 1992, "melt & pour" in 1996 and put "unplug & pour" into internet-speak in 2002. We've never tried to patent or otherwise restrict the use of these ideas.

Now needed more than ever. Now refined more than ever.

- ✓ cut CO₂
- ✓ sabotage "designer waste"
- ✓ save money

<http://www.urefilltoner.co.uk>

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