The HP laser printing device HP Color LaserJet Pro M452dw is awarded with the environmental label Blue Angel (RAL-UZ 171, edition July 2012) for meeting altogether more than 100 strict certification criteria. In the following, essential environmental information on the device is summarised. Comprehensive information on the Blue Angel product requirements and detailed product specifications are available at www.blauer-engel.de.

**Printing paper**
This device is suitable for using recycled paper in accordance with EN 12281.

**Double sided printing**
The device is equipped with an automatic duplexer for double-sided printing.

**Guarantee of repairs**
Spare parts for the repair of this device model are still available at least five years after end of production.

**Information on maintenance of equipment**
Cleaning, maintenance and disposal should only be performed by experts in accordance with the instructions in the product documentation.

**Return of equipment**
HP offers customers in Germany the opportunity to return used equipment. Information on the return of equipment is available at your local HP sales or customer-service centre or at www.hp.com/recycle.

**Return of consumables**
In Germany and many other countries, HP laser toner cartridges for this device as well as the waste toner container can be returned to HP as part of the return and recycling programme. The packaging of each new HP laser toner cartridge contains information on how to participate in this programme. Or visit our website: www.hp.com/recycle.

**Information on handling of the toner modules**
- Please leave HP LaserJet toner cartridge in its despatch packaging until you need it for use in your printer; when inserting the HP laser toner cartridge, please follow the information on handling.
- HP laser toner cartridges should never be opened by force. If toner dust escapes, e.g. as a result of inappropriate handling, inhalation of dust and skin contact are to be avoided as a precautionary measure.
- In case of skin contact wash affected areas thoroughly with soap and cold water. HP laser toner cartridges are to be kept out of the reach of children.
Air emissions
With original HP toners, the device passes the air emission test for monochrome and colour printing according to RAL-UZ 171. Since plastics of new electrical devices generally release small amounts of volatile substances into the room air, we recommend providing sufficient air exchange in rooms where new devices are set up.

Noise emissions
Declared sound power level for printing ($L_{WA}$)
In fastest (loudest) monochrome print mode: 6.03 Bels and 60.3 dB
In fastest (loudest) colour print mode: 6.08 Bels and 60.8 dB

Energy
Energy information on HP Color LaserJet Pro M452dw

The consumption of electric power depends on its properties and on the way it is used. HP Color LaserJet Pro M452dw is designed and pre-set in a way to allow you to reduce electricity costs.

Directly after the last print job, HP Color LaserJet Pro M452dw with its instant-on fuser technology switches over to an electric power saving mode, from which it can quickly print again. If the device switches over to electric power saving modes, you can save electricity and operating costs. If the device is to print again, there can be a short delay – this is called return time. However, the device meets the strict Blue Angel requirements for a return time (http://www.blauer-engel.de).

You can save electricity costs by shortening the device’s activation times as it will switch over to an electric power saving mode more quickly. If you extend the activation time or deactivate the electric power saving mode, you should consider that consequently the device will consume more electric power and might no longer meet the maximum value for electric power consumption of the Blue Angel. We recommend not extending the activation times.

The device is so designed as to ensure that it can be switched to the Plug-in Off mode by pressing the on/off switch up to twice a day without suffering damage. This device does not have a switch by which it can be completely disconnected from the mains. When after having switched off the device you pull out the power plug, electric power consumption is completely stopped.

The table below lists the individual power consumption values as well as activation and return times (factory setting). With these values the device meets the Blue Angel requirements. The values also apply if the device is connected to a wired data network.
Overview of HP Color LaserJet Pro M452dw operating modes

Page throughput for A4 paper size (according to ISO/IEC 24734):

In monochrome print mode: 27 pages/minute with a resolution of 600 x 600 dpi
In colour print mode: 27 pages/minute with a resolution of 600 x 600 dpi

(dpcm = dots per centimetre [Bildpunkte pro Zentimeter]; (dpi = dots per inch [Bildpunkte pro Zoll])

Maximum power consumption (at switch on): 1206.0 watts

<table>
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<th>Switch symbol</th>
<th>Operation mode</th>
<th>Power consumption**</th>
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<td></td>
<td>Printing</td>
<td>549.0 watts</td>
<td>Immediately</td>
<td>Immediately</td>
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<td>(continuous</td>
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<td></td>
<td>27 pages/minute</td>
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<td></td>
<td>monochrome</td>
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<tr>
<td>Ready</td>
<td>14.29 watts</td>
<td>Immediately</td>
<td>Immediately</td>
<td></td>
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<tr>
<td>Sleep</td>
<td>2.32 watts</td>
<td>5 (1…60)</td>
<td>1.4</td>
<td></td>
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<tr>
<td>Plug-in Off</td>
<td>0.05 watts</td>
<td>switch activated</td>
<td>–</td>
<td></td>
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<tr>
<td>Disconnection from mains</td>
<td>0.0 watts</td>
<td>e.g. pull out power plug</td>
<td>–</td>
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</tr>
</tbody>
</table>

1 After the last print job, the device switches over to electric power saving modes in several steps. By and by, electric power consumption is reduced in these modes. The device will switch over to the Ready mode first. Then the device switches over to Sleep mode after the activation time stated above.

2 Averaged value, measured without accessories

3 Activation time is the time that elapses after the end of the printing process until the device enters the respective mode. The figures in brackets indicate the user-selectable range within which activation times can be adjusted.

Energy consumption of HP Color LaserJet Pro M452dw

Measured according to the settings stated in the table above, the energy consumption of HP Color LaserJet Pro M452dw is 1.407 kilowatt-hours/week (energy consumption at standard use cycle according to ENERGY STAR version 1.1 determined by using the test pattern taken from ISO/IEC 10561:1999).