



Environmental Data Sheet for bizhub 451i

1 Company			
Manufacturer/Supplier:	Konica Minolta Business Solutions Europe GmbH		Tel.:+49/511/7404-0
Address:	D-30855 Langenhagen, Europaallee 17		Fax:+49/511/741050
	Before getting back to the editor, please contact your local support first		
Editor:	Konica Minolta, Sustainability Management, ESG		Tel.:+49/511/7404-361
	Markus Kelch		Fax:+49/511/7404-396
	markus.kelch@konicaminolta.eu		

2 Tests / Approvals / Declarations			
2.1	CE Conformity:	Declaration of Conformity	For this product an EU Declaration of Conformity according to EN17050-1 is available. It can be obtained from the editor on request.
2.2	EU-Directives:	2014/35/EU 2014/30/EU 2009/125/EC 2011/65/EC	This product is in compliance with the listed EU directives: - Low Voltage Directive / Product Safety - EMC Directive / Electromagnetic Compatibility - ErP Directive / Eco Design - RoHS2 Directive and amendments
2.3	Safety Tests:	Nemko Mark P 232 273 92	NEMKO, Norway EN 62368-1
2.4	EAC Certification:	KG 417/026.JP.02.11558 (0136831)	EAC certificate
2.5	Electromagnetic Compatibility (EMC):	EMC Mark	NEMKO, Norway EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3
2.6	ENERGY STAR:	ENERGY STAR program compliance	EPA based (version 3.2) This product is listed in ENERGY STAR databases
2.7	Eco Design Directive:	2009/125/EC 1275/2008/EC	Framework for the setting of eco design requirements for energy-related products Requirements for electrical power consumption in standby and off-mode
2.8	Blue Angel Mark:	German environmental label is applied	RAL DE-UZ 219
2.9	Document Authenticity:	PTS certificate will be applied Printer: Copier: ISO 11798 will be applied	Papiertechnische Stiftung (PTS) Ordinance for Lawyers and Notaries in Germany (DONot), § 29; RISE (Sweden) According Swedish National Archive Regulations relevant test conditions were noted down in the according test certificate!
2.10	Laser safety	EN 60825-1 : 2014	Class 1 laser
2.11	Quality and Environmental Management:	ISO 9001 certification ISO 14001 certification	This product was manufactured under a certified Quality Management System according to ISO 9001 and under a certified Environmental Management System according to ISO 14001.



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3	General Information			
3.1	Speed:	Pages per minute Printing Copying	Black and White 45 (ISO 24734) 45 (ISO 24735)	Colour
3.2	Weight:	About 98 kg	Basic System only	
3.3	Dimensions / Volume:	615 mm 688 mm 961 mm 407 litre	Width Depth Height Volume (calculated)	Basic System only
3.4	Environmental programmes:	This product conforms to the following voluntary environmental programme requirements:	Konica Minolta Environmental Policy Konica Minolta Product Environmental Assessment All production sites have ISO 14001 certification. Konica Minolta Environmental Report including environmental accounting report is published annually. https://www.konicaminolta.com/about/csr/environment/index.html	
3.5	Extension of product lifetime:	The manufacturer offers on a voluntary base:	Spare parts availability: Service availability: Warranty:	7 years after end of production 7 years after end of production (depends on service level agreement, business to business) Depends on service level agreement, business to business
3.6	Materials:	This product contains no*:	Cadmium (< 0.01%) Lead Hexavalent chromium Mercury (except for a fluorescent lamp) PBB and PBDE (Polybrominated biphenyls and their ethers contained in mechanical plastic parts in concentrations exceeding the natural background levels) Ozone depletion substances, according to those categories that are already banned in the Montreal protocol Chloroparaffines with chain length 10-13 atoms, chlorination greater than 50% contained in mechanical plastic parts PCB or PCT Large-size plastic case parts (weighing more than 25g) do not contain the halogenated flame proofing agents. Asbestos * Impurity threshold level: less than 0.1%	

4	Emissions / Consumption																															
4.1	Operation noise: (Measured values)	Sound power, Lwa ¹⁾ Sound power declared, Lwad Sound pressure, operator position, Lpa ²⁾	<table border="1"> <thead> <tr> <th colspan="2">Black and White</th> <th colspan="2">Colour</th> </tr> </thead> <tbody> <tr> <td>Standby</td> <td>x.xx dB(A)</td> <td>Standby</td> <td>dB(A)</td> </tr> <tr> <td>Printing</td> <td>66.1 dB(A)</td> <td>Printing</td> <td>dB(A)</td> </tr> <tr> <td>Standby</td> <td>x.xx dB(A)</td> <td>Standby</td> <td>dB(A)</td> </tr> <tr> <td>Printing</td> <td>69.1 dB(A)</td> <td>Printing</td> <td>dB(A)</td> </tr> <tr> <td>Standby</td> <td>x.xx dB(A)</td> <td>Standby</td> <td>dB(A)</td> </tr> <tr> <td>Printing</td> <td>x.xx dB(A)</td> <td>Printing</td> <td>dB(A)</td> </tr> </tbody> </table>	Black and White		Colour		Standby	x.xx dB(A)	Standby	dB(A)	Printing	66.1 dB(A)	Printing	dB(A)	Standby	x.xx dB(A)	Standby	dB(A)	Printing	69.1 dB(A)	Printing	dB(A)	Standby	x.xx dB(A)	Standby	dB(A)	Printing	x.xx dB(A)	Printing	dB(A)	<p>Basic unit without accessories</p> <p>1) measured and declared according to ISO7779, DE-UZ 219</p> <p>2) workspace related emission value, operator test position: height=1.50m; distance=0.25m in front of the panel position</p> <p>nm Not measured</p> <p>nd There is no noise in ready mode two minutes after the last printout</p>
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4 Emissions / Consumption

4.2 Energy
(measured values)

Power
Max power consumption ³⁾
Average power consumption ⁴⁾

	Power [Watt]	Mode (230V)
Max.	1580	Starting
Printing	700	Operating
Standby	71	Without energy-save
	24.5	With energy-save
	0.4	Sleep mode
	0.075	Plug-in off mode

Recovery times

Time [seconds]	Recovery from mode
8	Energy-save mode
2	Sleep mode

Applied standard test method: DE-UZ 219

3) Short-term maximum value, for mains fuse calculation

4) Calculation basis for power consumption

TEC

Version 3.2: 0.38 kWh/week
Only for reference:
Version 2.0: x.x kWh/week

Typical Energy Consumption value, weekly base, according to the definitions of ENERGY STAR (230V)

Heat Generation
(calculated)

Printing	2,520 kJ/h	
	BTU/h	BTU 230V, based on the TEC value of this product (24 h x 7 days)
Standby	256 kJ/h	Without energy-save

4.3 Emissions:
(Measured values)

Substances

Ozone

Styrene

Benzene

TVOC

Fine dust

Operation (Printing)	Emission rate [mg/h]	Concentration ⁵⁾ [mg/m ³]
Standby	nm	
Operating b/w	0.400 mg/h	0.020 mg/m ³
Standby	nm	
Operating b/w	0.100 mg/h	0.005 mg/m ³
Standby	Nm	
Operating b/w	0.020 mg/h	0.001 mg/m ³
Standby	0.022 mg/h	0.001 mg/m ³
Operating b/w	0.100 mg/h	0.005 mg/m ³
Standby	nm	
Operating b/w	1.500 mg/h	0.075 mg/m ³

Test conditions

Basic system without options / accessories

Test conditions according to DE-UZ 219. Emission rate in mg/h.

5) - Calculation to evaluate the ambient air concentration rate in mg/m³: Room size 40 m³, Air exchange rate 0.5/h, and Multi operating cycles.

nd = not detectable (below the detection limit)

nm = not measured

Regular maintenance assumed. Measured values were evaluated on basis of one machine. Values may vary within production.



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5	Consumables and other items												
5.1	Toner:	black, for bizhub 451i, bizhub 551i, bizhub 651i (TN628)	<p>Components: Styrene acrylic resin, polyester resin, ferrite (iron oxide and manganese oxide), carbon black, wax, amorphous silica, organic pigment (<1%). Flashpoint over 350 °C. When used as intended (toner for office copies) no danger for health and environment. Avoid dusting. Test on mutagenic activity (AMES) showed negative results. Classification class for endangerment of water: WGK = 1 (Germany, slightly endangering water) Waste toner classification no. (EWC): 080318, GC020, green list, not hazardous waste Polymerized toner reduces environmental impacts (CO₂, NO_x and SO_x emissions during production of toner) by about 40% compared to conventional toners.</p>										
5.2	Waste toner box:	1 box	Must be replaced after 300,000 printouts										
5.3	Photoconductor:	Photoconductor for: bizhub 451i, bizhub 551i, bizhub 651i	Aluminium tube coated with organic material.										
5.4	Filters:	This product contains 1 filter	Must be replaced after 330,000 printouts										
5.5	Batteries:	1 lithium battery (CR2032)	<p>The batteries are in conformity with 2006/66/EC (battery and accumulators). The product documentation contains information about proper disposal, which should be followed</p>										
5.6	Light source:	Scanner lamp	LED										
5.7	Recycling paper	Papers according to EN 12281:2002 are suitable for use	Storage in climate-proof packaging recommended										
5.8	Packaging material:	<table border="0"> <thead> <tr> <th>Material</th> <th>Weight [kg]</th> </tr> </thead> <tbody> <tr> <td>Paper / Cardboard</td> <td>x.xx</td> </tr> <tr> <td>Plastic Foamed PE</td> <td>x.xx</td> </tr> <tr> <td>Plastic PE</td> <td>x.xx</td> </tr> <tr> <td>Others</td> <td>x.xx</td> </tr> </tbody> </table> <p>Packaging material is free of PVC</p>	Material	Weight [kg]	Paper / Cardboard	x.xx	Plastic Foamed PE	x.xx	Plastic PE	x.xx	Others	x.xx	
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5.9	Disassembly/Recycling:	<p>Mechanical plastic parts weighing more than 25g are marked according to ISO 11469. Of total plastic parts' weight >25g, recycled material content percentage is 39.35% according DE-UZ 219.</p>											
5.10	Take back information:	The supplier offers take back and recycling services for products and consumables in many locations throughout the world. Customers are advised to contact their supplier representatives for additional information.											
5.11	Documentation:	<p>The documentation is available as printout on Totally Chlorine Free bleached paper or as electronic file. https://manuals.konicaminolta.eu/konicaminolta x.xx means: data not yet available.</p>											