



## Annex B1 - Product environmental attributes

### Imaging equipment

The declaration may be published only when all rows and/or fields marked with \* are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	<i>Ricoh</i>	Logo
Company name *	<i>Ricoh Company Ltd</i>	
Contact information * e-mail address	<i>Ricoh Europe (Netherlands) , John M. Keynesplein 10-B 1066 EP, Amsterdam, The Netherlands reu.compliance@ricoh-europe.com</i>	
Internet site *	<i>www.ricoh.com</i>	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	<i>Colour MFP</i>
Commercial name *	<i>M C320FW</i>
Model number *	<i>M C320FW</i>
Issue date *	<i>07 October 2024</i>
Intended market *	<input type="checkbox"/> Global <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
Additional information	

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

#### About Annex B1

Annex B1 reflects Product environmental attributes relevant for Imaging products. The following items from the ECMA-370 Main body are not shown in the template:

P9.1 PTEC, ETEC and display resolution  
P12.1-P12.2 Ergonomic requirements.

Model number *	M C320FW	Logo	
Issue date *	07 October 2024		

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
<b>P1</b>	<b>Hazardous substances and preparations</b>			
P1.1*	Products do comply with the current European RoHS Directive. (See legal reference and NOTE B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 µg/cm <sup>2</sup> /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): <a href="mailto:reu.compliance@ricoh-europe.com">reu.compliance@ricoh-europe.com</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P2</b>	<b>Batteries</b>			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.4*	Documentation includes the number of cycles the (secondary) battery can withstand. (See legal reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P2.5*	When internal batteries of a notebook computer cannot be "accessed and replaced by a nonprofessional user", the related text is present and legible on the external packaging (see legal reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>P3</b>	<b>Conformity verification &amp; Eco design (ErP)</b>			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at (add link or e-mail address): <a href="https://www.ricoh.com/products/ce_doc2/">https://www.ricoh.com/products/ce_doc2/</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.2*	The product complies with the Eco design Requirements for Energy-Related Products, (see legal reference). Required information is; <input type="checkbox"/> given in item P15 or added to this document, <input type="checkbox"/> available at (add URL):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>P4</b>	<b>Consumable materials</b>			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium at a level greater than 0,01% (see legal reference and NOTE B1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P4.2*	If ink/toner is used in the product, it does not contain cadmium at a level greater than 0,1% by weight (see legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P4.3*	If the ink/toner formulation/preparation is classified as hazardous or contains a substance for which there are Community workplace exposure limits, the product/packaging is adequately labeled according to applicable regulations and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>P5</b>	<b>Product packaging</b>			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P6</b>	<b>Treatment information</b>			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	M C320FW	Logo	
Issue date *	07 October 2024		

Product environmental attributes - Market requirements (See General Note GN below)			
- Environmental conscious design			Requirement met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No n.a.
<b>P7 Design</b>			
<b>Disassembly, recycling</b>			
P7.1*	Parts that have to be treated separately are easily separable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.2*	Plastic materials in covers/housing have no surface coating.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Product lifetime</b>			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.8*	Upgrading can be done using commonly available tools	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.9.	Spare parts are available after end of production for: 7 years		<input type="checkbox"/>
P7.10	Service is available after end of production for: 7 years		<input type="checkbox"/>
<b>Material and substance requirements</b>			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: PC Material type: Material type:		
P7.12	Insulation materials of external electrical cables are PVC free.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.13	Insulation materials of internal electrical cables are PVC free.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all <input type="checkbox"/> PCBs > 25 g <input type="checkbox"/> are low halogen as defined in IEC 61249-2-21. (See NOTE B2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: FR(40)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive) <input type="checkbox"/> , TBBPA (reactive) <input type="checkbox"/> (See NOTE B3), Other; chemical name: , CAS #:  Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "  Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: FR(40) fir Civers/Housing	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements: The source(s) for these classifications is/are found at (add URL(s)): , (See NOTE B5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

Model number *	M C320FW	Logo	
Issue date *	07 October 2024		

Product environmental attributes - Market requirements (continued)				Requirement met		
Item				Yes	No	n.a.
<b>Material and substance requirements (continued)</b>						
P7.20*	Postconsumer recycled plastic material content is used in the product (See NOTE B6):			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If YES; at least one of the two alternatives below shall be answered;					
	a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is <b>51.0%</b> .					
	or					
	b) The weight of recycled material is <b>6652.45 g</b> .					
P7.21*	Biobased plastic material content is used in the product (See NOTE B7):			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If YES; at least one of the two alternatives below shall be answered;					
	a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %.					
	or					
	b) The weight of the biobased plastic material is g.					
P7.22*	Light sources are free from mercury, i.e. less than 0,1 mg/lamp.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg					
P7.23*	If product includes an integral display, the total mercury content in the integrated display: 0 mg			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P8	<b>Batteries</b>					
P8.1*	Battery chemical composition: <b>Lithium-ion battery (one cell battery)</b>					<input type="checkbox"/>
P9	<b>Energy consumption (See NOTE B8)</b>					
P9.1	For the product the following power levels or energy consumptions are reported:					
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for energy modes and test method *		<input type="checkbox"/>
Operating mode	W	W	Mono: <b>431.2 W</b> Colour: <b>452.0 W</b>			<input type="checkbox"/>
Ready mode	W	W	<b>22.1 W</b>			<input type="checkbox"/>
Sleep mode	kWh/week	kWh/week	<b>0.58 W</b>			<input type="checkbox"/>
TEC value	kWh/week	kWh/week	<b>0.32 kWh/week</b>	<b>Based on ENERGY STAR Ver 3.2 Test Method. TEC value satisfies the program requirements.</b>		<input type="checkbox"/>
	W	W	W			<input type="checkbox"/>
	W	W	W			<input type="checkbox"/>
	W	W	W			<input type="checkbox"/>
	W	W	W			<input type="checkbox"/>
	W	W	W			<input type="checkbox"/>
External Power Supply Efficiency Level (International Efficiency Marking Protocol) * :						<input checked="" type="checkbox"/>
Print/Scan Speed * : <b>32 (Mono) 32 (Colour)</b> images per minute						<input type="checkbox"/>
Default time to enter energy save mode: <b>1</b> minutes						<input type="checkbox"/>
P9.2*	Information about the energy save function is provided with the product.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic.

NOTE B8 A Guidance document on Energy efficiency is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

Model number *	M C320FW	Logo	
Issue date *	07 October 2024		

Product environmental attributes - Market requirements (continued)				Requirement met		
Item				Yes	No	n.a.
<b>P10 Emissions</b>						
<b>Noise emission – Declared according to ISO 9296 (See NOTE B9)</b>						
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,C}$ (B)			
	Idle	* <i>Stand-by</i>	* <b>2.0</b>	<input type="checkbox"/>		
	Operation	* <i>Operating Mode</i>	* Mono: <b>6.8</b> , Colour: <b>6.8</b>	<input type="checkbox"/>		
	Other mode					
	Measured according to: <input checked="" type="checkbox"/> ISO 7779 <input type="checkbox"/> ECMA-74 <input type="checkbox"/> Other (only if not covered by ECMA-74)					
<b>Chemical emissions from printing products (See NOTE B10)</b>						
P10.2*	Test performed according to ECMA-328 Determination of Chemical Emission Rates from Electronic Equipment (ISO/IEC 28360) <input type="checkbox"/> , other specify: <b>RAL-UZ219</b>			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P10.3	Typical emission rate (operation phase) is (mg/h):					<input type="checkbox"/>
	Electrophotographic devices: Ozone <0.40 Dust <i>N/A</i> Styrene <0.10 (Mono), <0.10 (Colour) Benzene <0.02 (Mono), <0.02 (Colour) TVOC 1.09 (Mono), 2.98 (Colour)					<input type="checkbox"/>
	Ink devices: Ozone Dust Styrene Benzene TVOC					<input type="checkbox"/>
	NOTE: compliance with maximum emission rates in eco labels to be declared in P14.					
<b>P11 Consumable materials for printing products</b>						
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN 12281.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P11.4*	The product is delivered to end-user with default auto-duplex enabled.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>P13 Packaging and documentation</b>						
P13.1*	Product packaging material type(s): <b>Corrugated Paper</b> weight (kg): <b>3.41</b> Product packaging material type(s): <b>CardBoard</b> weight (kg): <b>0.000</b> Product packaging material type(s): <b>LDPE</b> weight (kg): <b>0.101</b> Product packaging material type(s): <b>PP</b> weight (kg): <b>0.068</b>					
P13.2*	Product plastic primary packaging is free from PVC.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: <b>70</b> %			<input checked="" type="checkbox"/>		<input type="checkbox"/>
P13.4*	Specify media for user and product documentation (tick box): Electronic <input checked="" type="checkbox"/> , Paper <input checked="" type="checkbox"/> , Other <input type="checkbox"/>					<input type="checkbox"/>
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:  Totally chlorine-free Elemental chlorine-free Processed chlorine-free			<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>		
				<input type="checkbox"/>		
				<input type="checkbox"/>		
<b>P14 Voluntary programs:</b>						
P14.1	The product meets the requirements of the following voluntary program(s):					
	ENERGY STAR®	Criteria version: <b>See P9.1</b>	Date:	Product category:		
	Eco-label: <b>BAM</b>	Criteria version: <b>RAL-UZ 219</b>	Date:	Product category: <b>MFP</b>		
	Eco-label:	Criteria version:	Date:	Product category:		

NOTE B9 A Guidance document on Acoustic Noise is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

NOTE B10 A Guidance document on Chemical Emissions is available;  
see <http://www.ecma-international.org/publications/standards/Ecma-370.htm>.

Model number *	<i>M C320FW</i>	Logo	
Issue date *	07 October 2024		

Product environmental attributes - Market requirements (concluded)		Requirement met
P15	Additional information (See NOTE B11)	
	<i>Sound pressure level at the operator position [LpA:dB(A)]</i> <i>Stand-by: 3.8 (dB)</i> <i>Operating Mode : Mono: 59.3, Colour: 59.5 (dB)</i>	

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NOTE B11 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

## Legal references Europe Annex B1

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1, P4.1, P3.1
Commission Regulation (EC) 1907/2006 (REACH Regulation), annex XVII	P1.2, P1.4, P1.6, P1.7, P4.2
Commission Regulation (EC) 1907/2006 (REACH Regulation), annex VII	P1.10
Commission Regulation (EC) 1907/2006 (REACH Regulation), Article 31, annex II)	P4.3
Commission Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000, (Marketing and use of Ozone layer depleting substances)	P1.3, 5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2006/66/EC (Battery and accumulators Directive), as amended.* * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2.3, P8.1
Directive 2014/35/EU (Low Voltage Directive)	P3.1
Directive 2014/30/EU (EMC Directive)	P3.1
Directive 2014/53/EU (RE Directive)	P3.1
Commission Regulation (EC) No 1275/2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment (Standby Regulation)	P3.1, P3.2
Commission Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	
Commission Regulation (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers	
Commission Regulation (EC) 1272/2008 (CLP Regulation)	P4.3, P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2

<p>Directive 2012/19/EU (WEEE directive)</p> <p>Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register.</p> <p>Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State.</p>	P6.1
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