



ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

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 *	Lenovo	Logo
Company name *	Lenovo	_
Contact information * e-mail address	Lenovo Global Environmental Affairs Alvin L Carter alcarter@lenovo.com	Lenovo.
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	.html
Additional information	The latest version of this document can be found at:	
	http://www.lenovo.com/ecodeclaration	

The company declares (based on product specification or test results based obtained from sample testing), that the product					
conforms to the statemer	nts given in this declaration.				
Type of product *	Portable Computer Tablet				
Commercial name *	Lenovo TAB 8				
Model number *	ZA3L				
Issue date *	2018.3.19				
Intended market *	Global Europe Asia, Pacific & Japan Americas Other				
Additional information					

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

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:

P4.1 – P4.3 Consumable materials

P9.1 TEC and Print speed

P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products

Model number *		ZA3L Logo	Lon		
Issue da	te *	2018.3.19	Len	OVO	O _{TM}
Produc	t environ	mental attributes - Legal requirements	Require	men	t met
Item			Yes	No	n.a.
P1		us substances and preparations			
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\boxtimes		
P1.2*		do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.			
P1.3*		do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	\boxtimes	\Box	
		omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-			
	trichloro	ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum			
		ation values.			
P1.4*		do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated	\boxtimes		
		l (PCT) in preparations (see legal reference).			
P1.5*		do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the	• 🖂		
D4.0*		ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).			
P1.6*		h direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week			
		al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.			
P1.7*		Article 33 information about substances in articles is available at (add URL or mail contact):		$\overline{}$	$\overline{}$
F 1.7		w.lenovo.com/social_responsibility/us/en/environment.html	\boxtimes		
P2	Batterie	_ , ,			
P2.1*		siduct contains a battery or an accumulator, the battery/accumulator is labeled with the disposal	<u> </u>	_	
	symbol.	Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*		or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal			
	referenc				
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)	\boxtimes		
P3		nity verification & Eco design (ErP)			
P3.1*	The prod	luct is CE-marked to show conformance with applicable legal requirements (see legal reference).			
	The Dec	laration of Conformity can be requested at (add link or e-mail address):			
P3.2*	The prod	luct complies with the Eco design requirements for energy-related products,			
	(see lega	al reference).			
	Required	d information is; given in item P15 or added to this document,	\boxtimes		
		available at (add URL):			
P5	Product	packaging			
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium and	d 🔀		
	hexavale	ent chromium by weight of these together.			
P5.2*		kaging materials are marked with abbreviations and numbers indicating the nature of the material(s	;)		
		e legal reference).			
P5.3*	The pro	duct packaging material is free from ozone depleting substances as specified in the Montrea	al 🔀		

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.

Protocol (see legal reference).

Comment: Legal reference has no maximum concentration values.

Information for recyclers/treatment facilities is available (see legal reference).

Treatment information

P6 P6.1*

Model number *	ZA3L	Logo	Lonovo
Issue date *	2018.3.19		Lei Iovo.

Product	environmental attributes - Market requirements (See General NOTE GN below)			
	- Environmental conscious design	Require	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	Design, Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable		Ц	
P7.2*	Plastic materials in covers/housing have no surface coating.			
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.			\boxtimes
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		\boxtimes	
P7.8*	Upgrading can be done using commonly available tools		\boxtimes	
P7.9	Spare parts are available after end of production for: 3 years			
P7.10	Service is available after end of production for: 1 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: PC Material type: PC+ABS Material type: SUS304			
P7.12	Insulation materials of external electrical cables are PVC free.			
P7.13	Insulation materials of internal electrical cables are PVC free.			
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		\boxtimes	
	polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in part			
	containing more than 25% post-consumer recycled content.			
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	v 🗵		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:			
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: DOPO, CAS #: 35948-25-5			
	<u>Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(40)</u>			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in			
	concentrations above 0,1%:			\boxtimes
	1. Chemical name: Potassium nonafluoro-1-butanesulfonate, CAS #: 29420-49-3 (See NOTE B4)			
	2. Chemical name: Triphenyl phosphate, CAS #: 115-86-6 3. Chemical name: , CAS #: "			
··	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:		<u>Ц</u>	
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; <i>R36/37/38</i> and Hazard statements: <i>S26-S36/37/39</i>	\boxtimes		
	assigned the following Risk phrases; R36/37/38 and Hazard statements: S26-S36/37/39 The source(s) for these classifications is/are found at (add URL(s)):			
	http://www.chemicalbook.com/CASEN_29420-49-3.htm, (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):		X	
	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) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is %. 			
	or			
	b) The weight of recycled material is g.			

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.

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.

Model nun	nber *	ZA3L					Logo
Issue date	*	2018.3.1	9				Lenovo
Product	environn	nental at	tributes	- Market r	equirements (conti	inued)	Requirement me
Item					•	•	Yes No n.a.
	Material	and subs	stance re	quirements	(continued)		
P7.21*		-			d in the product (See N		
					es below shall be answ		detect on a consentant
		otal plasti otal plastic				material content (calcu	liated as a percentage
	or	•	, ,	,			
D7.00*				ased plastic r			
P7.22*				mercury, i.e. Number of lar	less than 0,1 mg/lamp	num mercury content pe	er lamp: mg
P8	Batterie		оросу	14111201 01 141		iam moreary content po	· · · · · · · · · · · · · · · · · · ·
P8.1*	Battery o	hemical c	ompositio	on: <i>Li-ion Po</i>	lymer		
P9				NOTE B8)			
P9.1		roduct the			s or energy consumpti		Defended for
Energy mo	ae *		_	er level at 0 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for energy modes and test method *
Peak (On-I	max)		5 W		5 W	5 W	Full load
Categor	<u>yl3</u>						
Short Idle	State - W	OL	2.846 V	I	3.16 W	2.945 W	Use for ENERGY STAR V6
Enabled							registration (P _{idle})
Long Idle	State - Wo	OL	3.198 V	I	3.05 W	3.287 W	Use for ENERGY STAR V6
Enabled							registration (P _{idle})
Sleep (S3)	- WOL E	nabled	V	V	W	W	Use for ENERGY STAR V6
							registration(P _{sleep})
Sleep (S3)	- WOL Di	sabled	0.297 W	I	0.41 W	0.458 W	Reference
Off (S5) - V	WOL Enat	oled	٧	V	W	W	Use for ENERGY STAR V6 registration(P _{off})
Off (S5) - V	VOL Disa	bled	0.24 W		0.23 W	0.4 W	Use for ErP
			٧	V	W	W	Reference
EPS No-loa	ad		0.035 V	I	0.036 W	0.051 W	
(External power s wall outlet but dis-	supply / charger	plugged in the					
PTEC *			٧	V	W	W	
Typical Ene	ergy Cons	umption	4 22 1-14	/l= /	4.40.130/15/15.55	4 47 13 14 15 15 15 15	F = (0700/4000) ++ (D ++ 0.05
ETEC * Annual Ene	ergy Cons	umption	1.33 kW	/n/year	1.46 kWh/year	1.47 kWh/year	ETEC = (8760/1000) x (Poff x 0.25 + P _{sleep} x 0.35 + P _{long_idle} x 0.10+ P _{short_idle} x 0.30)
		. =				Mode(S3) - WOL Enable	ed; P _{idle} : Idle State - WOL Enabled
		•	•	`	l Efficiency Marking Pr	otocol) * : VI	
Display res			<u> </u>				
Default time							
P9.2*				•	on is provided with the	product.	
P9.3		•	ciass (mo	nitors only):			
P10	Emissio		Declared	l according to	ISO 9296 (See NOTE	= R0)	
P10.1	Mode		Mode des		7 100 9290 (See NOTE		it A-weighted sound power level, $L_{WA,c}$ (B)
	Idle	*				*	× × × × × × × × × × × × × × × × × × ×
	Operatio	n *				*	
	Other mo	ode D	eclared A-	weighted soun	d pressure level (dB) $L_{p{\sf A}}$	(operator po	sition desktop – idle)
	Other mo				d pressure level (dB) $L_{p{\sf A}{\sf I}}$		sition desktop – operating)
		d accordir		ISO 7779	ECMA-74	, , , , , , , , , , , , , , , , , , ,	
	ivicasuit	a accordi	.g .u	Other	(only if not covered by	/ ECMA-74)	

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

NOTE B9 A Guidance document on Acoustic Noise is available; $see \hspace{0.1cm} \underline{\text{http://www.ecma-international.org/publications/standards/Ecma-370.htm}$

Model number *		ZA3L			Logo	Long	1/0	
Issue dat	:e *	2018.3.19				Leno		
Product	environr	nental attributes	- Market requirements	(continued)		Require	ment	met
Item						Yes	No	n.a.
	Electron	magnetic emission	s					
P10.4	Compute program	. ,	requirement for low frequer	ncy electromagnetic fields	s of the following volunta	ary 🔀		
P12		mics for computing						
P12.1*	The disp							
P12.2*	The phy	sical input device m	eets the requirements of ISC	O 9995 and ISO 9241-41	0.			
P13		ing and documenta						
P13.1*	Product		type(s): box weig type(s): paper(manual) type(s): PP weight (kg): 0.0	ht (kg): 0.073 weight (kg): 0.007 01				
P13.2*	Product	plastic primary pack	aging is free from PVC.			\boxtimes		
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content:							
P13.4*	Specify media for user and product documentation (tick box):							
P13.5	Ùser and		tem if paper documentation ation on paper media is chlo					
	Element	hlorine-free al chlorine-free ed chlorine-free						
P14	Volunta	ry programs						
P14.1	The prod	duct meets the requ	irements of the following vol	untary program(s):				
	ENERG` Eco-labe Eco-labe		Criteria version: 6.1 Criteria version: Criteria version:	Date: 2014-9-10 Date: Date:	Product category: <i>I2</i> Product category: Product category:			
P15		nal information (Se	,					
P9			pecific configuration may					
	informat knowled	ion contained in this ge available at the t I here is approximat	epresentations, guarantees, document. All information p ime of completion, and supp e and provided for informati	provided by supplier in thi plier shall have no obligat	s document is provided ion to update such inforr	based on supposition. The inf	olier's ormati	on
P9			lotebooks & Tablet Computendex.cfm?fuseaction=find_a					
				·				

NOTE B10 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 B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * 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 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
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	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by 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 (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo TAB 8	Logo	
Model Number	ZA3L		Lenovo
Issue Date	2018.3.19		reliovo"
Additional information			

	Product environmental attributes							
d)	Year of manufacture:				2018			
e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are			
(f)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enable							
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3			
	Memory over base [GB]	1						
ents	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
ability a lied du	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
cap	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)			
	Category of discrete graphics Card(s)	No						
esults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	1.47						
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled							
(g)	Idle state power demand (Watts);	1	-	1	3.28			
(h)	Sleep mode power demand (Watts);				0.46			
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);					
(j)	Off mode power demand (Watts);				0.4			
(k)	Off mode with WOL enabled power dema	and (Watts) (where en	abled);					
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 °	% of rated output pow	er (if applicable):				
	10% 20% 50%	100% Avera	ige					
(m)	External power supply efficiency (if applied	cable)*:						
	Average active efficiency: 79.18							
	*internal note: show values for all available external po							
(o)	Minimum number of loading cycles that t	he batteries can withs	tand (applies only to n	notebook computers):	300			
(p-1)	Measurement methodology used to dete	rmine information mer	itioned in points (I) - in	nternal PSU efficiency	:			
(p-2)	Measurement methodology used to dete							

(p-3)	 Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: 0.5C Charge/Discharge 							
(p-4)	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: ENERGY STAR Test Method for Computers, Rev. Aug-2010							
(q)	Sequence of steps for achieving a stable condition with respect to power demand:: ENERGY STAR Test Method for Computers, Rev. Aug-2010							
(r)	Description of how sleep and/or off mode was selected or programmed: refer to power management, sleep mode: ACPI system level G1/S3 (suspend to RAM) state; off mode: ACPI system level G2/S5 ('soft off') state							
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: **refer to power management, 1mins automatically reaches sleep mode**							
(t)	condition which does	te condition before the computer automatically rendered the applicable power demand requirement	ents for sleep mode (in minutes):	1				
(u)		a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		NA				
(v)		re the display sleep mode is set to activate after		1				
(w)	Information on the er	nergy-saving potential of power management functionergy-saving power functionergy-saving	nality:					
(x)	User information on I	now to enable the power management functionality: refer to user manual						
(z)		measurements: — test voltage in V and frequency in system, — information and documentation on the in sting: 230V50HZ-2%-Edition 2.0, 2011-01, Section 4	strumentation, set-up and circuits					
Addition	nal Notebook Batter	y Information:						
		Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a				
		The battery[ies] in this product cannot be easily replaced by users themselves. 1)						
Internal/I	built-in Battery							
External	/detachable Battery							
Bios Bac	ckup Battery							
Other:								
Additiona	al information							
Akymynatopi Las baterías Výměnu bate Brugeren kar Der Akku/die Kasutajad ei H μπαταρία[- Lal/les batteria/les Lietotāji paši Šio gaminio t A termék akk ILietotāji paši Šio gaminio t A termék akk ILietotāji paši Batteriiet (ene De batterija/ba Batteriiet (bate Bateria (bate Baterii/baterij/ Baterij/baterij/ Tämän tuotte Det är inte er	ната[ите] батерия[и] в този de este producto no pueden rierle/baterií v tomto výrobku by nikke uden videre udskifte be Akkus dieses Produkts kanr saa selle toote akut/akusid is ec] στο προϊόν αυτό δεν μπο e(s présente(s) dans ce produce lako zamijeniti Bateriju se batterie in questo produto nevar nomainīt šā ražojuma baterijos [bateriju] pats vartot kumulátorát/akkumulátorait a tetriji f dan il-prodott ma tistæ] i dette produktet kan ikke le n) in dit product is (zijn) door nie može sam w latwy sposóť rias deste produto não poder riile) din acest produs nu poætomto výrobku nemôže vymi je v tem izdelku uporabniki se en akku [akut] ei[vät] ole helekelt för kunden att själv byta	ρούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες uit ne peuvent être facilement remplacée(s) par les utilisateurs esam u ovom proizvodu. on può/possono essere facilmente sostituita/e dall'utente. akumulatoru(-us). ojas negali lengvai pakeisti. felhasználó nem tudja egyedül egyszerűen kicserélni. //jistgħux tiġi/jiġu sostitwita/i mill-utenti stess. stt erstattes av brukerne selv. de gebruiker niet gemakkelijk vervangbaar. o wymienić baterii w tym produkcie. n ser facilmente substituídas pelos próprios utilizadores. tte (pot) fi uşor înlocuită (înlocuite) de utilizatorii înşişi. eñat používatef. ami ne morejo zlatka zamenjati. oosti käyttäjän vaihdettavissa.	werden.					