

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 *	Lenovo Global Environmental Affairs]				
e-mail address	Alvin L Carter		Lenovo			
	alcarter@lenovo.com					
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 statement	conforms to the statements given in this declaration.					
Type of product *	of product * Notebook					
Commercial name *	ThinkBook 15 G3 ITL, Zhaoyang E5-ITL					
Model number *	21A5, 82Q0					
Issue date *	2020/8/28					
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 nu	mber *	21A5, 82Q0	Logo	Long		
Issue dat	:e *	2021/5/10		Leng		
Product	environ	mental attributes - Legal requirements		Require	men	t met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	E B1)	\boxtimes		
P1.2*	Products Comme	\boxtimes				
P1.3*	Products hydrobro trichloro concent					
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych /l (PCT) in preparations (see legal reference).		\square		
P1.5*	chain co	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 car ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).				
P1.6*	(see leg	th direct and prolonged skin contact do not release nickel in concentrations above (al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):	\boxtimes		
P2	Batterie					
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	the disposal	\boxtimes	\boxtimes	
P2.2*		s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadn	nium. (See lega	al 🔀		
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conform	nity verification & Eco design (ErP)				
P3.1*		duct is CE-marked to show conformance with applicable legal requirements (see leg claration of Conformity can be requested at: <i>https://www.lenovo.com/us/en/comp</i>		\boxtimes		
P3.2*	The pro	duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	•	d information is; given in item P15 or added to this document, available at: https://www.lenovo.com/us/en/complian	ce/eco-	\boxtimes		
	declara					
P5		packaging				
P5.1*	hexaval	ng and packaging components do not contain more than 0,01% lead, mercur ent chromium by weight of these together.	-			
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature e legal reference).				
P5.3*	Protocol Comme	duct packaging material is free from ozone depleting substances as specified (see legal reference). nt: Legal reference has no maximum concentration values.	in the Montre	al 🔀		
P6		nt information				
P6.1*	Informat	on for recyclers/treatment facilities is available (see legal reference).		\boxtimes		

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 nu	umber *	21A5, 82Q0	Logo	Lon		
Issue da	te *	2021/5/10		Len	ovc)
Product	t environ	mental attributes - Market requirements (See General NOTE GN	below)			
		onmental conscious design		Require		
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7.1*		Disassembly, recycling at have to be treated separately are easily separable				
						<u> </u>
P7.2*		naterials in covers/housing have no surface coating.				<u> </u>
P7.3*	•	parts > 100 g consist of one material or of easily separable materials. parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.				
P7.4*	-					
P7.5	-	parts are free from metal inlays or have inlays that can be removed with commonly	available tools	s. 🔀		
P7.6*	Labels a	are easily separable. (This requirement does not apply to safety/regulatory labels).		\square		
		lifetime				
P7.7*		ng can be done e.g. with processor, memory, cards or drives				
P7.8*	Upgradir	ng can be done using commonly available tools		\square		
P7.9	Spare pa	arts are available after end of production for: 5 years				
P7.10	Service	is available after end of production for: 5 years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
D7.40			ial type:			
P7.12		n materials of external electrical cables are PVC free.				<u> </u>
P7.13		n materials of internal electrical cables are PVC free.				
P7.14	weight (polyviny	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) between the provided pro	ne retardants,	and		
P7.15		circuit boards, PCBs (without components) are low halogen: all Z PCBs > as defined in IEC 61249-2-21. (See 1NOTE B2)	25 g 🗌 are	low 🔀		
P7.16	Marking:			\square		
P7.17		hemical specifications of flame retardants in printed circuit boards > 25 g (without o	components):	_	_	_
	TBBF	PA (additive), 🛛 TBBPA (reactive) (See NOTE B3), 🗌 Other: , CAS #:				
		hemical specifications of flame retardants in printed circuit boards (without compor ig ISO 1043-4: <i>FR1</i> 6	nents) > 25 g			
P7.18	<u>Alt. 1: </u> F	lame retarded plastic parts > 25 g contain the following flame retardant substanc	es/preparatior	ns in		
	1. Chem 2. Chem	rations above 0,1%: nical name: , CAS #: (See NOTE B4) nical name: , CAS #: " nical name: , CAS #: "				
	<u>Alt. 2: </u> Cl	hemical specifications of flame retardants in plastic parts > 25 g according ISO 104	13-4: FR(40)			
P7.19		c parts > 25 g, flame retardant substances/preparations above 0,1% are used whic				
	assigned	d the following Risk phrases; and Hazard statements:				_
	The sou	rce(s) for these classifications is/are found at (add URL(s)):	See note B5)			
P7.20*	Postcon	sumer recycled plastic material content is used in the product (See Note B6):		\boxtimes		
	a) Of t a p or	at least one of the two alternatives below shall be answered; total plastic parts' weight > 25 g, the postconsumer recycled plastic material content ercentage of total plastic by weight) is 2.56% .	nt (calculated	as		

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 num	ber *	21A5, 82	Q0			Logo		
Issue date	*	2021/5/1	0				Lenovo	
Product e	nvironm	nental at	tributes - Market ı	requirements (conti	nued)	<u>k</u>	Requirement me	
Item				•			Yes No n.a.	
	Material	and subs	stance requirements	(continued)				
P7.21*	Biobased	plastic m	aterial content is use	d in the product (See N	OTE B7):			
	If YES; at	t least one	e of the two alternativ	es below shall be answ	ered;			
				g, the biobased plastic	material content (calc	culated as a perce	entage	
	of to or	otal plastic	by weight) is	%.				
		weight of	the biobased plastic	material is g.				
	Light sou	rces are f	ree from mercury, i.e	less than 0,1 mg/lamp				
		/	specify: Number of la	mps: and maxim	ium mercury content p	er lamp: m	ng la la la	
P8	Batteries		enen esitien. Li ne hun					
			omposition: <i>Li-polym</i>	ler				
P9 P9.1	Energy of	consumpt	tion (See NOTE B8)	els or energy consumpti	ons are reported:			
Energy mod			Power level at	Power level at	Power level at	Reference/Sta	ndard for energy	
55			100 V AC	115 V AC	230 V AC	modes and te	0,	
Peak (On-n	iax)		65 W	65 W	65 W	Full load		
Category	2							
Short Idle S Enabled	State - Wo	OL	7.64 W	7.22 W	7.42 W		RGY STAR V8	
Enabled						registration (Pidle)	
Long Idle S	tate - WC	DL	1.50 W	1.51 W	1.56 W		RGY STAR V8	
Enabled						registration (P _{idle})	
Sleep (S3)	WOL En	abled /	1.50 W	1.51 W	1.56 W	Use for ENER	RGY STAR V8	
Disabled		abrea				registration (
Off (S5) - N	OL Enab	lod /	0.29 W	0.29 W	0.32 W	Uso for ENER	RGY STAR V8	
Disabled		ieu /	0.25 11	0.20 11	0.02 11	registration,		
PTEC *			w	W	14/			
Typical Ene	rav Consi	umption	vv	vv	W		\boxtimes	
ETEC *	igy conice	Inpuon	23.94 kWh/year	23.06 kWh/year	23.78 kWh/year	E _{TEC} = (8760/2	1000) x (P _{off} x 0.25	
Annual Ene	rgy Consu	umption				+ P _{sleep} x 0.35	+ P _{long_ldle} x 0.10+	
			D (Off Mode/SE) M	Ol Enchlady D - Sloop	Mada(S2) MOL Enab	P _{short_Idle} x 0.3		
External Po		ly Efficien		<i>OL Enabled; P_{sleep}: Sleep</i> al Efficiency Marking Pr		ieu, r _{idle} : laie Stati		
		-	o megapixels				<u> </u>	
. ,			ve mode: 10 minutes				<u> </u>	
		0,		ion is provided with the	product			
			class (monitors only):		product.			
	0,	,	ass (monitors only):					
P10	Emission		Declared according t	o ISO 9296 (See NOTE	- B9)			
P10.1	Mode		lode description			nit A-weighted sou	und power level, <i>L_{WA,c}</i> (B)	
ŀ	Idle	* Idle			* 2.6			
	Operation	ו *	CPU Operating		* 3.5		<u> </u>	
ł	Other mo	de D	eclared A-weighted sour	nd pressure level (dB) L _{pAr}	18.0 (operator pos	ition desktop – idl	e)	
-	Other mo			nd pressure level (dB) L_{pAr}		ition deskton – on	erating)	
F				1				
	Measured	d accordir	ng to: 🔀 ISO 7779 🕻	V 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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nu	mber *	21A5, 82Q0					Logo				
Issue dat	e *	2021/5/10						Le	eno	vo	~
Product	environ	nental attribu	tes - Market requiren	nents (con	itinued)			Re	quire		met
Item									Yes	No	n.a.
		nagnetic emiss									
P10.4	program	(s):	the requirement for low f	frequency e	lectromagnetic field	s of the foll	owing volun	tary		\square	
P12		mics for compu									
P12.1*	The disp	play meets the e	rgonomic requirements o	f ISO 9241-	307 for visual displa	ay technolo	gies.			\boxtimes	
P12.2*	The phy	sical input devic	e meets the requirements	s of ISO 999	95 and ISO 9241-41	0.				\boxtimes	
P13		ing and docum									
P13.1*	Product	packaging mate	rial type(s): <i>LDPE+PP</i> rial type(s): <i>EPE</i> rial type(s): <i>corrugated</i>	weight (kg weight (kg weight (kg	j): 0.108						
P13.2*			packaging is free from PV						\boxtimes		
P13.3*		duct primary con er recovered fibe	rrugated fiberboard pack er content: 80 %	kaging, spec	cify the contained	percentage	of minimun	n post-			
P13.4*	Specify	media for user a ronic, XPaper,	nd product documentatio	on (tick box):							
P13.5	Ùser an		nis item if paper documen nentation on paper media								
	Totally c	hlorine-free									
	Element	al chlorine-free							E I		
	Process	ed chlorine-free							Н		
P14	Volunta	ry programs									
P14.1			equirements of the follow	ring voluntar	y program(s):						
	ENERG	Y STAR®	Criteria version: 8.0	0	Date: 2021/5/24		category: 2				
	Eco-labe		Criteria version:		Date:	Product of					
	Eco-labe		Criteria version:		Date:	Product of	category:				
P15			(See NOTE B10)								
F9			f specific configuration								
	informat knowled	ion contained in ge available at t I here is approxi	no representations, guara this document. All inform he time of completion, an mate and provided for inf	nation provid nd supplier s	led by supplier in th hall have no obliga	is documer tion to upda	nt is provided ate such info	d based or rmation.	on supp The inf	olier's format	ion
P9			ed Notebooks & Tablet Co ov/index.cfm?fuseaction=				code=CO				

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	ThinkBook 15 G3 ITL, Zhaoyang E5-ITL	Logo
Model Number	21A5, 82Q0	
Issue Date	2020/8/28	Lenovo
Additional information		

(d)	Year of manufacture:				
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 Categor enable	ry and capability adjust	ments applied when a	all discrete graphics of	cards (dGfx) are
		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]	40	36		
ents ting	Additional internal storage	Yes (Yes / No)	Yes (Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	<mark>No</mark> (Yes / No)	(Yes / No)	(Yes / No)
ability <i>a</i> lied du	Discrete Audio Card	No (Yes / No)	<mark>No</mark> (Yes / No)	(Yes / No)	(Yes / No)
cape app	Discrete graphics Card(s) [number / #]	No #: NA (Yes / No)	Yes #: 1 (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	NA	G4		
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)	15.34			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled		14.48		
(g)	Idle state power demand (Watts);		1		A:4.59; B:4.23
h)	Sleep mode power demand (Watts);				A:1.64; B:1.86
i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		A:1.64; B:1.86
j)	Off mode power demand (Watts);				A:0.35; B:0.33
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		A:0.35; B:0.33
(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 appli	cable)*:			
	Average active efficiency: 65W: 91.11% *internal note: show values for all available external p		%, 90.86%, 91.14%,	91.26%	
(0)	Minimum number of loading cycles that		tand (applies only to n	otebook computers):	300
(p-1)	Measurement methodology used to dete	ermine information men	tioned in points (I) – i	nternal PSU efficiency	: NA
(p-2)	Measurement methodology used to dete	ermine information men	tioned in points (m) –	external PSU efficience	cy:
		63:2011 measuremen	t mathedalagu		

(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries:							
		EN 61960 measurement methodolog	gy					
(p-4)		dology used to determine information mentioned in n Point P9.1 in the Product IT Eco Declaration:	naximum, idle, sleep, off mode					
		EN 61960 measurement methodolog	a <i>y</i>					
(q)	Sequence of steps for	or achieving a stable condition with respect to power	demand::					
		EN 61960 measurement methodolog	gy					
(r)	Description of how sleep and/or off mode was selected or programmed:							
		Begin menu -> Power -> Select sleep or o	ff mode					
(s)	Sequence of events off mode: base on Us	required to reach the mode where the equipment aut ser <i>Guide</i>	tomatically changes to sleep and/or					
(t)		te condition before the computer automatically re not exceed the applicable power demand requirement		10min				
(u)	Length of time after	a period of user inactivity in which the compute ver power demand requirement than sleep mode (in	r automatically reaches a power	NA				
(v)	Length of time befo	re the display sleep mode is set to activate after	user inactivity (in minutes):	10min				
(w)	Information on the er	nergy-saving potential of power management function	nality:					
		Refer to User Guide						
(x)	User information on I	now to enable the power management functionality:						
		Refer to User Guide						
(z)			strumentation, set-up and circuits					
		230V, 50Hz, Total Harmonic Distortion	~2 %					
Addition	al Notebook Batter		Detter diest voor replaceet	n/a				
		Battery[ies] <u>not</u> user replaceable The battery[ies] in this product cannot be easily replaced by users themselves. ¹⁾	Battery[ies] user replaceable	n/a				
Internal/b	uilt-in Battery							
	detachable Battery							
	kup Battery							
Other:								
Additiona	l information							
Akymynaτöpha Las baterías d Výměnu bater Brugeren kan Der Akku/die / Kasutajad ei s Kasutajad ei s La/les batterie Korisnik ne mc La batteria/le ł Lietotāji paši n Šio gaminio bz A termék akku Il-batterija/batt Batteriet [ene] De batterij(en) Użytkownik nik A ou as bateri	ara[ure] δατερικη[и] в този i le este producto no pueden ic/bateri / tomto výrobku by ikke uden videre udskifte ba Akkus dieses Produkts kann aa selle toote akuť/akusid is cj στο προϊόν αυτό δεν μπο (s présente(s) dans ce prod ože lako zamijeniti Bateriju s patterie in questo prodotto n ievar nomainīt šā ražojuma aterijos [bateriju] pats vartot mulátorát/akkumulátorait a ieriji fdan il-prodott ma tistas i dette produktet kan ikke le i n dit product is (zijn) door e može sam w łatwy sposób as deste produto não poder ile) din acest produs nu poa	ρούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες uit ne peuvent être facilement remplacée(s) par les utilisateurs e sam u ovom proizvodu. on può/possono essere facilmente sostituita/e dall'utente. akumulatoru(-us).	werden.					

Bateriil/ele) v tomto vyrobku nemože vymienat použivater. Baterii/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.