

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 *	https://www.lenovo.com/us/en/about/sustainability				
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 statements given in this declaration.					
Type of product *	Notebook				
Commercial name *	Lenovo E41-50				
Model number *	82HW, 82HX				
Issue date *	2020/12/15				
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 n	umber *	82HW, 82HX	Logo				
Issue da	ite *	2020/12/15		Lene	Lenovo		
	t enviror	mental attributes - Legal requirements		Require		me	
Item				Yes	No	n.a	
P1		ous substances and preparations					
P1.1*	Product	s do comply with current European RoHS Directive. (See legal referenc	e and NOTE B1)	\boxtimes			
P1.2*	Comme	s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.		\boxtimes			
P1.3*	hydrobr trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (Cf omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, c ethane, methyl bromide (see legal reference). Comment: Legal referer ration values.	arbontetrachloride, 1,1,1	-			
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,0 yl (PCT) in preparations (see legal reference).	005% polychlorinated	\boxtimes			
P1.5*	Product	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).					
P1.6*	(see leg	th direct and prolonged skin contact do not release nickel in concentrat al reference). nt: Max limit in legal reference when tested according to EN1811:2011-		veek 🔀			
P1.7*	REACH	Article 33 information about substances in articles is available at (add l ww.lenovo.com/us/en/about/sustainability	URL or mail contact):	\square			
P2	Batterie						
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is la Information on proper disposal is provided in user manual. (See legal r		\boxtimes			
P2.2*	Batterie referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,00 e)	02% of cadmium. (See l	egal 🔀			
P2.3*	Batterie	s and accumulators are readily removable. (See legal reference)		\boxtimes			
P3	Confor	nity verification & Eco design (ErP)					
P3.1*		duct is CE-marked to show conformance with applicable legal requirem claration of Conformity can be requested at: <u>https://www.lenovo.com/us</u>		e). 🔀			
P3.2*		duct complies with the Eco design requirements for energy-related proc al reference).	lucts,	\boxtimes			
		d information is; given in item P15 or added to this document, available at: https://www.lenovo.com/us/en/v	,				
P5	Produc	t packaging	oomphanoo/coo-ucolarat				
P5.1*	Packagi	ng and packaging components do not contain more than 0,01% le ent chromium by weight of these together.	ead, mercury, cadmium	and 🔀			
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating be legal reference).	g the nature of the mater	ial(s) 🔀			
P5.3*	The pro (see leg	duct packaging material is free from ozone depleting substances as special reference). nt: Legal reference has no maximum concentration values.	cified in the Montreal Pro	tocol 🔀			
P6		ent information					

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 *		82HW, 82HX	Logo			
Issue dat	te *	2020/12/15		Len	ovo	Этн
Product	t environ	mental attributes - Market requirements (See General NOTE GN	below)			
	- Enviro	onmental conscious design	,	Require	ment	met
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7		Disassembly, recycling				
P7.1*		t have to be treated separately are easily separable				
P7.2*		naterials in covers/housing have no surface coating.		\square		
P7.3*	Plastic p	arts > 100 g consist of one material or of easily separable materials.		\boxtimes		
P7.4*	Plastic p	arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		\boxtimes		
P7.5	Plastic pa	arts are free from metal inlays or have inlays that can be removed with commonly a	available tools.	\square		
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).			Π	
	Product	lifetime				
P7.7*	Upgradir	ng can be done e.g. with processor, memory, cards or drives		\square		
P7.8*	Upgradir	ng can be done using commonly available tools				
P7.9	Spare pa	arts are available after end of production for: 5 years				
P7.10	Service i	s available after end of production for: 5 years				Ħ
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
		type: <i>plastics</i> Material type: Materia	al type:			
P7.12	Insulatio	n materials of external electrical cables are PVC free.		\square		
P7.13	Insulatio	n materials of internal electrical cables are PVC free.		\boxtimes		
P7.14	weight (' polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i in 25% post-consumer recycled content.	e retardants, an	nd 🗖		
P7.15	Printed c	circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g ed in IEC 61249-2-21. (See 1NOTE B2)	are low haloge	en 🗌	\boxtimes	
P7.16	Flame re	tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: >PC+ABS-TD15FR(40)<		\boxtimes		
P7.17	Alt. 1: Ch TBBF methyle	nemical specifications of flame retardants in printed circuit boards > 25 g (without c PA (additive), TBBPA (reactive) (See NOTE B3) Other: <i>Phenol, 4,4'-(1-</i> <i>thylidene)bis[2,6-dibromo-, polymer with 2-(chloromethyl)oxirane and 4,4'-(1-</i>				
	<u>Alt. 2: </u> Cł	thylidene)bis[phenol], CAS #: 26265-08-7 nemical specifications of flame retardants in printed circuit boards (without compon- g ISO 1043-4:	ents) > 25 g			\boxtimes
P7.18	Alt. 1: Fl concentr 1. Chemi	ame retarded plastic parts > 25 g contain the following flame retardant substance ations above 0,1%: ical name: , CAS #: (See NOTE B4) ical name: , CAS #: "	es/preparations	in		
	<u>Alt. 2: </u> Ch TD15FR					
P7.19	assigned	e parts > 25 g, flame retardant substances/preparations above 0,1% are used which I the following Risk phrases; and Hazard statements:	have been	\square		
			See note B5)			
P7.20*	lfYES;a a) Oft ape or	sumer recycled plastic material content is used in the product (See Note B6): It least one of the two alternatives below shall be answered; otal plastic parts' weight > 25 g, the postconsumer recycled plastic material conten ercentage of total plastic by weight) is 7.4%. It weight of recycled material is 44.4 g.	t (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 number *	82HW, 82HX	Logo	
Issue date *	2020/12/15		LEIIOVO

Product environmental attributes - Market requirements (continued)

Item

Requirement met Yes No n.a.

	Biobased plastic m Light sources are f If mercury is used Batteries Battery chemical c		ed in the product (See e. less than 0,1 mg/lam		
P8 P8.1* P9	If mercury is used a Batteries Battery chemical c			n	
P8.1* P9	Battery chemical c		ang ang maxi	mum mercury content p	per lamp: mg
P9	-				
	Energy concumpt	omposition: Li-polyn	ner		
P9.1		tion (See NOTE B8)			
			els or energy consump		
Energy mod		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 *
Peak (On-n	nax)	65 W	65 W	65 W	Full load
Category	<u>/ -1</u>				
Short Idle S Enabled	State - WOL	4.88 W	4.89 W	5.12 W	Use for ENERGY STAR V8 registration (P _{idle})
Long Idle S Enabled	itate - WOL	2.41 W	2.26 W	2.37 W	Use for ENERGY STAR V8 registration (P _{idle})
Sleep (S3)	- WOL Enabled	0.62 W	0.62 W	0.70 W	Use for ENERGY STAR V8 registration (P _{sieep})
Off (S5) - W	OL Enabled	0.12 W	0.12 W	0.19 W	Use for ENERGY STAR V8 registration (Poff)
Off (S5) - W	/OL Disabled	0.12 W	0.13 W	0.18 W	Use for ErP
EPS No-loa (External power su	pply / charger plugged in the	0.041 W	0.044 W	0.105 W	
PTEC *	rgy Consumption	1.20 W	1.20 W	1.29 W	
ETEC *	rgy Consumption	14.45 kWh/year	14.41 kWh/year	15.43 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.25 + P _{sleep} x 0.35 + P _{long_ldle} x 0.10+ P _{short Idle} x 0.30)
					oled; P _{idle} : Idle State - WOL Enabled
External Por	wer Supply Efficien	cy Level (Internation	al Efficiency Marking F	Protocol) * : VI	
Display reso	olution * : 1920*108	30 megapixels			
Default time	to enter energy sa	ve mode: 10 minutes	3		
			tion is provided with th	e product.	
P9.3		class (monitors only):	•	•	
P10	Emissions				
		Declared according	to ISO 9296 (See NOT	TE B9)	
P10.1		lode description			nit A-weighted sound power level, <i>L</i> _{WA,c} (B)
	Idle * Idle			* 2.6	
ľ		CPU operating		* 3.6	
F			nd pressure level (dB) L_p		sition desktop – idle)
	Other mode	eclared A-weighted sou	nd pressure level (dB) L_p	Am 28.7 (operator pos	sition desktop – operating)
	Measured accordir	ng to: 🔀 ISO 7779 🕻 Other	ECMA-74 (only if not covered I	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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nu	mber *	82HW, 82HX					Logo			
lssue dat	e *	2020/12/15						Lenc	VO	тн
Product	environ	mental attributes	s - Market requirem	nents (cor	tinued)			Require	ment	me
ltem								Yes	No	n.a
		magnetic emissio								
P10.4	Comput program		e requirement for low f	requency el	ectromagnetic fields	s of the foll	owing voluntary	′ 🗌		\geq
P12		mics for computin								
P12.1*	The disp	play meets the ergo	nomic requirements of	f ISO 9241-:	307 for visual displa	y technolog	gies.			
P12.2*	The phy	sical input device n	neets the requirements	s of ISO 999	5 and ISO 9241-41	0.			\square	
P13	Packag	ing and document	ation							
P13.1*	Product Product		type(s): <i>EPE</i> type(s): <i>LDPE+PP</i>							
P13.2*	Product	plastic primary pac	kaging is free from PV	C.				\square		
P13.3*	For proc	duct primary corrug	gated fiberboard pack content: 80 %	aging, spec	cify the contained p	percentage	of minimum p	ost-		
P13.4*			product documentatio Other	n (tick box):						
P13.5	Ùser an		item if paper documen tation on paper media							
	Totally o	hlorine-free								
	-	al chlorine-free						H		
	Process	ed chlorine-free						H		
P14	Volunta	ry programs								
P14.1			irements of the follow	ing voluntar	y program(s):					
		Y STAR® el: EPEAT el:	Criteria version: 8.0 Criteria version: 16 Criteria version:		Date: 2020/10/13 Date: 2020/11/30 Date:		category: 1 category: Note category:	book		
P15	Additio	nal information (S	ee NOTE B10)				Ŭ			
P9			pecific configuration	may vary;	description of the	tested pro	oduct configur	ation:		
	NOTE: S informat knowled	Supplier makes no l ion contained in thi ge available at the I here is approxima	epresentations, guara s document. All inform time of completion, an te and provided for info	ntees, assu ation provid d supplier s	rances or warrantie led by supplier in thi hall have no obligat	s whether e is documer ion to upda	express or impli at is provided ba ate such informa	ied, regardin ased on supp ation. The int	olier's format	tion
P9	See Ene	ergy Star Qualified I	Notebooks & Tablet Co ndex.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	Lenovo E41-50	Logo
Model Number	82HW, 82HX	
Issue Date	2020/12/15	Lenovo
Additional information		

P7.1.1	Product environmental attributes					
(d)	Year of manufacture:				2020	
(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	II discrete graphics o	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]	32				
lents sting	Additional internal storage	Yes (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)	NA				
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	34.2				
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled					
(g)	Idle state power demand (Watts);				2.65	
(h)	Sleep mode power demand (Watts);				0.690	
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.713	
(j)	Off mode power demand (Watts);				0.216	
(k)	Off mode with WOL enabled power demand (Watts) (where enabled); 0.216					
(I)	Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):					
	10% 20% 50%	100% Avera	age			
(m)	External power supply efficiency (if appli	cable)*:				
	Average active efficiency: 45W: 87,98%	6,88,63%,88,83% 6	5W: 89,41%,88,62%,	88,96%		
(0)	*internal note: show values for all available external p Minimum number of loading cycles that t		tand (applies only to p	otobook computors):		
(0)					300	
(p-1)	Measurement methodology used to dete	ermine information mer NA	ntioned in points (I) – ir	nternal PSU efficiency:		

(p-2)		dology used to determine information mentioned in rogram Requirements for Single Voltage Externa Eligibility Criteria (Version 2.0)		
(p-3)	Measurement metho	dology used to determine information mentioned in EN 61960 measurement methodolo		
(p-4)		dology used to determine information mentioned in a Point P9.1 in the Product IT Eco Declaration: EN 62623:2013 measurement method		
(q)	Sequence of steps for	or achieving a stable condition with respect to power EN 62623:2013 measurement method		
(r)	Description of how sl	eep and/or off mode was selected or programmed: Begin menu -> Power -> Select sleep or o	off mode	
(s)		required to reach the mode where the equipment au	tomatically changes to sleep and/or	
	off mode:	Energy-star requirement		
(t)		te condition before the computer automatically r not exceed the applicable power demand requirem		30 mins
(u)	mode that has a lov	a period of user inactivity in which the compute ver power demand requirement than sleep mode (ir	n minutes):	NA
(v) (w)	-	re the display sleep mode is set to activate after nergy-saving potential of power management functio	, , , , , , , , , , , , , , , , , , ,	10 mins
(**)		Refer to User Guide	nanty.	
(x)	User information on I	now to enable the power management functionality: <i>Refer to User Guide</i>		
(z)	the electricity supply	neasurements: — test voltage in V and frequency ir system, — information and documentation on the in		
	used for electrical tes	sting: 230V, 50Hz, Total Harmonic Distortion	<2 %	
Additiona	al Notebook Batter			1 -
		Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a
		The battery[ies] in this product cannot be easily replaced by users themselves. ¹⁾		
Internal/b	uilt-in Battery	\boxtimes		
External/c	letachable Battery			
Bios Back	up Battery			
Other:				
Additional	information		•	
κγκγνατόρματα s baterías de ýměnu baterie/ jugeren kan ikl er Akku/die Ak asutajad ei saa μπαταρία[-ες] //les batterie(s prisnik ne mož- b batteria/le ba- tetráji paši nev- ju/les batteria/le ba- termék akkum batterija/batter a batterij(en) ir żytkownik nie r ou as bateriai batterii(-ie) v tor	a[ure] δατερικι[μ] в τοзι η este producto no pueden s /baterii v tomto výrobku by ke uden videre udskifte bat kus dieses Produkts kann/ a selle toote akut/akusid ise oro προϊόν αυτό δεν μπορ présente(s) dans ce produ e lako zamijeniti Bateriju sa tterie in questo prodotto no var nomainīt šā ražojuma a srijos [bateriju] pats vartotoj ulátorát/akkumulátorait a fe iji f dan il-prodott ma tistax/ dette produktet kan ikke let n dit product is (zijn) door d nože sam w łatwy sposób v deste produto não podem	ούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες it ne peuvent être facilement remplacée(s) par les utilisateurs eu im u ovom proizvodu. n può/possono essere facilmente sostituita/e dall'utente. kumulatoru(-us). as negali lengvai pakeisti. ihasználó nem tudja egyedül egyszerűen kicserélni. jistgħux tiĝi/jiĝu sostitwita/i mill-utenti stess. t erstattes av brukerne selv. e gebruiker niet gemakkelijk vervangbaar. wymienić baterii w tym produkcie. ser facilmente substituídas pelos próprios utilizadores. e (pot) fi uşor înlocuită (înlocuite) de utilizatorii înşişi. ňať použivateľ.	verden.	