



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		

	based on product specification or test results based obtained from sample testing), that the product of the given in this declaration.
Type of product *	Notebook
Commercial name *	IdeaPad Flex 5 Chromebook 13
Model number *	8288
Issue date *	2020-3-28
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 *	82B8 Logo	Lon		
Issue dat	e *	2020-3-28	Len		J _{TM}
Product	environ	mental attributes - Legal requirements	Require	men	t met
Item			Yes	No	n.a.
P1	Hazardo	ous substances and preparations			
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\boxtimes		
P1.2*	Commer	s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.			
P1.3*	hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum ration values.			
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated l (PCT) in preparations (see legal reference).			
P1.5*		edo not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	e 🔀		
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/weel al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail contact): www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	\boxtimes		
P2	Batterie	s			
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with the disposal Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Batteries	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legale)	l 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)	\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)			
P3.1*		duct is CE-marked to show conformance with applicable legal requirements (see legal reference). laration of Conformity can be requested at: https://www.lenovo.com/us/en/compliance/eu-doc	\boxtimes		
P3.2*		fluct complies with the Eco design requirements for energy-related products, al reference).	\boxtimes		
	Required	I information is; given in item P15 or added to this document,	\boxtimes		
		available at: https://www.lenovo.com/us/en/compliance/eco-declaration			
P5		packaging			
P5.1*	hexavale	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium ar ent chromium by weight of these together.			
P5.2*	The pack used (se	kaging materials are marked with abbreviations and numbers indicating the nature of the material (e legal reference).	,		
P5.3*		luct packaging material is free from ozone depleting substances as specified in the Montreal Protoc al reference).	ol 🔀		
		nt: Legal reference has no maximum concentration values.			
P6	Treatme	nt information			

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

P6.1*

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 *	82B8	Logo	Lonovo
Issue date *	2020-3-28		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			
P7.2*	Plastic materials in covers/housing have no surface coating.	\boxtimes		
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.	\boxtimes		
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			
P7.8*	Upgrading can be done using commonly available tools	\boxtimes		
P7.9	Spare parts are available after end of production for: 5 years			
P7.10	Service is available after end of production for: 5 years			
	Material and substance requirements			_
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: PC/ABS Material type: Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.		\boxtimes	
P7.13	Insulation materials of internal electrical cables are PVC free.		\boxtimes	
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, an 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.	d		
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low haloge as defined in IEC 61249-2-21. (See 1NOTE B2)	n 🗌		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABS-TD15FR(40)<			
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: Brominated epoxy resin. CAS #: 26265-08-7			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations concentrations above 0,1%: 1. Chemical name: BPADP, CAS #: 181028-79-5 (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	in 🖂		
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:			\square
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)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):			
	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 0.7 %. or b) The weight of recycled material is 1.8 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 number *	82B8	Logo	Lanava
Issue date *	2020-3-28		Leliovo

Product environmental attributes - Market requirements (continued)	Requi	remer	nt met
Item	Yes	No	n.a.

	Matarial and and		- (ti d)			
P7.21*		ostance requirements	ed in the product (See N	IOTE B7\·		
1 7.21	biobased plastic	material content is use	ed in the product (See N	IOTE BT).		Ш
P7.22*	Light sources are	free from mercury i e	e. less than 0,1 mg/lamp	1	\square	
1 7.22		d specify: Number of la		num mercury content p		ш
P8	Batteries	. ,	<u> </u>	<u> </u>		
P8.1*		composition: Lithium	ion			П
P9		ption (See NOTE B8)				
P9.1			els or energy consumpt	ions are reported:		
Energy mo		Power level at	Power level at	Power level at	Reference/Standard for energy	
		100 V AC	115 V AC	230 V AC	modes and test method *	
Peak (On-	max)	45 W	45 W	45 W	Full load	
Categor	y <u>11-</u>					
Short Idle	State - WOL	4.27 W	4.27 W	4.35 W	Use for ENERGY STAR V8.0	
Enabled	Otate - WOL	4.27 W	4.27 **	4.55 11	registration (Pidle)	
	State - WOL	1.51 W	1.54 W	1.73 W	Use for ENERGY STAR V8.0	
Enabled					registration (P _{idle})	
Sleen (S3)) - WOL Enabled	1.51 W	1.54 W	1.73 W	Use for ENERGY STAR V8.0	
0.000	, 1102 2110100				registration (P _{sleep})	
Off (CE)	WOL Enabled	0.41 W	0.41 W	0.44 W	Use for ENERGY STAR V8.0	
OII (35) -	WOL Enabled	0.47 VV	0.41 VV	0.44 VV	registration (P _{off})	
Off (S5) -	WOL Disabled	0.41 W	0.41 W	0.44 W	Use for ErP	
EPS No-lo		0.02 W	0.02 W	0.06 W		
(External power wall outlet but dis	supply / charger plugged in the sconnected from the product.)	9				
PTEC *	soonnooted nom the product,	20.4 W	20.4 W	20.4 W		
	ergy Consumption					
ETEC * Annual En	ergy Consumption	18.1 kWh/year	18.2 kWh/year	19.2 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35 + P_{long_ldle} \times 0.10 + P_{short_ldle} \times 0.30)$	
		Poff: Off Mode(S5) - V	VOL Enabled; Psleep: Slee	p Mode(S3) - WOL Enabl	led; P _{idle} : Idle State - WOL Enabled	
External P	ower Supply Efficie	ency Level (Internation	al Efficiency Marking Pr	otocol) * : V/		
Display res	solution * : 1920*1	080megapixels				
		save mode: 30 minutes	3			Ħ
P9.2*			tion is provided with the	product.		X
P9.3		class (monitors only):	<u> </u>	F		$\overline{\mathbf{X}}$
P10	Emissions	,),				
		- Declared according	to ISO 9296 (See NOTI	E B9)		
P10.1		Mode description	,		nit A-weighted sound power level, $L_{WA,c}$	(B)
	Idle	* System Idle		* 21.3		
	Operation	* CPU;Operation		* 32.9		
	Other mode	Declared A-weighted sou	and pressure level (dB) L_{pA}	(operator po	osition desktop – idle)	
	Other mode		and pressure level (dB) L_{pA}		osition desktop – operating)	
	Measured accord	ling to: X ISO 7779		l		
		Other	(only if not covered by	y 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 nui	nber *	82B8					Logo	Long	V/0	
Issue date	*	2020-3-28						Leno	VO,	'М
Product	environn	nental attributes	- Market requiren	ments (con	ntinued)			Require	ment	met
Item			-	-	-			Yes	No	n.a.
	Electron	nagnetic emission	IS							
P10.4	Compute program		e requirement for low	frequency el	lectromagnetic field	s of the foll	owing voluntary			
P12		nics for computin								
P12.1*	The disp	lay meets the ergor	nomic requirements o	of ISO 9241-	307 for visual displa	ay technolo	gies.	\boxtimes		
P12.2*	The phys	sical input device m	eets the requirements	ts of ISO 999	95 and ISO 9241-41	0.				
P13		ng and document								
P13.1*	Product	packaging material packaging material packaging material	type(s): paper	weight (kg weight (kg weight (kg	j): 0.01002					
P13.2*	Product	plastic primary pacl	kaging is free from PV	VC.						
P13.3*		luct primary corruger recovered fiber of	jated fiberboard pack ontent: <mark>90</mark> %	kaging, spec	cify the contained p	percentage	of minimum po	ost-		
P13.4*		media for user and ronic, Paper,	product documentation Other	on (tick box):						
P13.5	Ùser and		tem if paper documer tation on paper media							
	•	hlorine-free al chlorine-free								
	Processe	ed chlorine-free						Ħ		
P14	Volunta	ry programs								
P14.1			irements of the follow	ving voluntar	y program(s):					
	ENERGY Eco-labe Eco-labe		Criteria version: 8.0 Criteria version: Criteria version:	0	Date: 2020-4-10 Date: Date:	Product of	0 ,			
P15		nal information (Se								
P9			pecific configuration							
	informati knowledge provided informati	on contained in this ge available at the t here is approximat on.	epresentations, guara s document. All inform time of completion, ar te and provided for inf	nation provid nd supplier s formational p	led by supplier in the shall have no obligate ourposes only. See	is documer tion to upda a Lenovo A	nt is provided ba ate such informa	sed on suppation. The inf	olier's formati	ion
P9			Notebooks & Tablet C 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	IdeaPad Flex 5 CB 13IML05	Logo	
Model Number	82B8		Lonovo
Issue Date	2020-3-28		Lenovo.
Additional information			

d)	Year of manufacture:				2018	
e)	Etec value (kWh) per ErP Lot 3 Categordisabled and if the system is tested with	n switchable graphics r	node with UMA driving	the display.	, ,	
f)	Etec value (kWh) per ErP Lot 3 Categorienable	ry and capability adjust	ments applied when a	ill discrete graphics (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]	8GB				
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	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)					
saults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)					
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled					
g)	Idle state power demand (Watts);	1	-	1	4.35	
1)	Sleep mode power demand (Watts);				1.7	
)	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);			
)	Off mode power demand (Watts);				0.4	
()	Off mode with WOL enabled power dem	and (Watts) (where en	abled);			
)	Internal power supply efficiency at 10 %	, 20 %, 50 % and 100 °	% of rated output pow	er (if applicable):		
	10% 20% 50%	100% Avera	age			
n)	External power supply efficiency (if appli	icable)*:				
	Average active efficiency: 85.71%, 82.6	51%, 87.80%				
p)	*internal note: show values for all available external power supplies Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 300					
o-1)	Measurement methodology used to dete	ermine information mer	ntioned in points (I) – in	nternal PSU efficiency:	:	

(p-2)	2) Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: ENERGY STAR® Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies Eligibility Criteria (Version 2.0)			
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: ≥70% of Cmin			
(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: IEC 62623			
(q)	Sequence of steps for achieving a stable condition with respect to power demand: *Power on -> Wait 5 minutes -> Stable condition*			
(r)	Description of how sleep and/or off mode was selected or programmed: **Begin menu -> Power -> Select sleep or off mode** **Transport of the sleep and sleep and sleep are sleep are sleep and slee			
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: NA			
(t)	Duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes):			30min
(u)	Length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes):			NA
(v)				10min
(w)	Information on the energy-saving potential of power management functionality: *Refer to User Guide*			
(x)	User information on how to enable the power management functionality: *Refer to User Guide*			
(z)	Test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing:			
		230V50HZ-2%-Edition 2.0, 2011-01, Section	4, IEC62301	
Additio	nal Notebook Batter	y Information:		
		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/built-in Battery				
External/detachable Battery				
Bios Backup Battery				
Other:				
Addition	nal information			

The battery[ies] in this product cannot be easily replaced by users themselves.

Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.

Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé. Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden. Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada. Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες

La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes.

Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu. La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente.

Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us).

Sio gaminio baterijos [bateriju] pats vartotojas negali lengvai pakeisti.

A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni.

Il-batterija/batteriji f'dan il-prodott ma tistax/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess.

Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv.

De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar.

Użytkownik nie może sam w latvy sposób wymienić baterii w tym produkcie.

A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores.

Bateria (bateriile) din acest produs nu poate (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși.

Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ. Baterij/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.