

ECMA/TC38-TG3/2015/026 (Rev. 1 – 27 Feb 2019)

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		ODOVO		
e-mail address	Alvin L Carter		Lenovo		
	alcarter@lenovo.com				
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	t.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 *	Notebook					
Commercial name *	ThinkBook Plus G2 ITG					
Model number *	20WH					
Issue date *	2021/4/29					
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 *	20WH Logo			
Issue date *		2021/4/29	Lend	JVC	9 ₁₁₁
Produc	t environ	mental attributes - Legal requirements	Require	ment	met
Item			Yes	No	n.a.
P1		ous substances and preparations			
P1.1*		s do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\square		
P1.2*	Comme	s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.	\square		
P1.3*	hydrobro trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), pmofluorocarbons (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).	\square		
P1.5*	Products chain co				
P1.6*	Parts wi (see leg Comme				
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail contact): <pre>www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure</pre>	\boxtimes		
P2	Batterie				
P2.1*	symbol.	oduct 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)	\square		
P2.2*	Batterie: referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See lega e)			
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)	\square		
P3	Confor	nity verification & Eco design (ErP)			
P3.1*	The Dec	duct is CE-marked to show conformance with applicable legal requirements (see legal reference). Iaration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/us/en/compliance/eu-doc			
P3.2*		duct complies with the Eco design requirements for energy-related products, al reference).	\square		
	Require	d information is; available at (add URL): www.lenovo.com/us/en/compliance/eco-declaration			
P5		packaging			
P5.1*	Packagi	ing and packaging components do not contain more than 0,01% lead, mercury, cadmium ar ant chromium by weight of these together.	d 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the material(e legal reference).	s) 🔀		
P5.3*	(see leg	duct packaging material is free from ozone depleting substances as specified in the Montreal Protoc al reference). nt: Legal reference has no maximum concentration values.	ol 🔀		
DC		nt information			
P6					

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 numbe	er* 20WH Logo	-		
Issue date *	2021/4/29	len	ovc	Эн.
Product envi	ronmental attributes - Market requirements (See General NOTE GN below)			
	vironmental conscious design Requi	ement	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			<u> </u>
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.			\square
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\square		
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).	\square		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\square		
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):			
D7 10	Material type: PC+ABS+15%Talc Material type: AL/PC+ABS Material type: Magnesiu	<u>m</u>		
P7.12	Insulation materials of external electrical cables are PVC free.			_Ц
P7.13	Insulation materials of internal electrical cables are PVC free.		\square	
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.			
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)		\square	
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABS<, >PC+ABS-TD15FR(40)<	\boxtimes		
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:, CAS #:	\boxtimes		
	<u>Alt. 2:</u> Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: <i>FR</i> (16)	\boxtimes		
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: confidential, CAS #: confidential (See NOTE B4)			
	<u>Alt. 2:</u> Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: <i>FR(40)</i>	\boxtimes		
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: <i>H411</i>			
	The source(s) for these classifications is/are found at (add URL(s)): <i>European Council Directive</i> 67/548/EEC (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):	\boxtimes		
	 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 15.3%. 			
	or b) The weight of recycled material is 3.6 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.

Issue date *	20WH 2021/4/29	Logo	Len	ονα)
Product environ	Product environmental attributes - Market requirements (continued)				nt met
Item			Yes	No	n.a.

11							
2							
	stance requirements						
P7.21* Biobased plastic n	Biobased plastic material content is used in the product (See NOTE B7):						
a) Of total plasti total plastic b or	c parts' weight > 25 g		wered; material content (calcula	ated as a percentage of			
P7.22* Light sources are	Light sources are free from mercury, i.e. less than 0,1 mg/lamp.						
P8 Batteries							
P8.1* Battery chemical of	Battery chemical composition: <i>Lithium ion</i>						
	Energy consumption (See NOTE B8)						
		els or energy consump					
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 *			
Peak (On-max)	65 W	65 W	65 W	Full load			
Category 1							
Short Idle State - WOL Enabled	6.59 W	6.59 W	6.86 W	Use for ENERGY STAR V8.0 registration (P _{idle})			
Long Idle State - WOL Enabled	4.87 W	4.86 W	5.06 W	Use for ENERGY STAR V8.0 registration			
Sleep (S3) - WOL Enabled / Disabled	1.49 W	1.54 W	1.54 W	Use for ENERGY STAR V8.0 registration			
Off (S5) - WOL Enabled / Disabled	0.52 W	0.52 W	0.56 W	Use for ENERGY STAR V8.0 registration, ErP			
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	0.0413W	0.0541W	0.0441 W				
PTEC * Typical Energy Consumption	W	W	W				
ETEC * Annual Energy Consumption	27.29 kWh/year	27.44 kWh/year	28.41 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)			
External Power Supply Efficier				ed; P _{idle} : Idle State - WOL Enabled			
Display resolution * : 2560*16							
. ,	01						
Default time to enter energy sa							
	6,	tion is provided with th	e product.				
P9.3 Energy efficiency of	class (monitors only):						

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

see http://www.ecma-international.org/publications/standards/Ecma-370.htm

P10	Emissions				
	Noise emission	on – Declared according to ISO 9296 (See NOT	E B9)		
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, L _{WA,c} (B)		
	Idle	* System Idle	* 1.7		
	Operation	* CPU;Operation	* 5.4		
	Other mode	Declared A-weighted sound pressure level (dB) L _{pAm}	19.0 (operator position desktop – idle)		
	Other mode	Declared A-weighted sound pressure level (dB) L _{pAm}	32 (operator position desktop – operating)		
	Measured according to: ISO 7779 ECMA-74 Other (only if not covered by ECMA-74)				

Model nu	mber *	20WH			Log	0	Long			
lssue dat	e *	2021/4/29					Lenovo			
Product	environr	nental attribut	es - Market requirements (continued)			Require	ment	met	
ltem							Yes	No	n.a	
		nagnetic emissi								
P10.4	program	(s): MPR-II(3 pin	he requirement for low frequent AC adapter only)	cy electromagnetic fields	s of the following	ı voluntary				
P12		mics for comput								
P12.1*	The disp	play meets the erg	onomic requirements of ISO 92	241-307 for visual displa	y technologies.		\square			
P12.2*	The phy	sical input device	meets the requirements of ISO	9995 and ISO 9241-410	0.		\boxtimes			
P13		ing and docume								
P13.1*	Product	packaging mater	al type(s): Corrugated Carton al type(s): Polyethylene Cush al type(s): Others weigh							
P13.2*	Product	plastic primary pa	ackaging is free from PVC.				\boxtimes			
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-									
P13.4*	Specify media for user and product documentation (tick box):									
P13.5	Ùser an		s item if paper documentation u entation on paper media is chlor							
		hlorine-free al chlorine-free								
	Process	ed chlorine-free					Ē			
P14	Volunta	ry programs								
P14.1	The proc	duct meets the re	quirements of the following volu	intary program(s):						
	ENERG	Y STAR®	Criteria version: 8.0	Date: 2021/03/17	Product catego	orv [.] 72				
	Eco-labe	el:	Criteria version:	Date:	Product catego					
	Eco-labe	el:	Criteria version:	Date:	Product catego					
P15	Additio	nal information (See NOTE B10)							
P9			specific configuration may v							
	informat knowled	ion contained in t ge available at th I here is approxin	o representations, guarantees, a his document. All information pr e time of completion, and suppl nate and provided for informatio	ovided by supplier in thi ier shall have no obligat	s document is p ion to update su	rovided ba ch informa	ased on supp ation. The inf	olier's formati	on	
P9	See Ene	ergy Star Qualifie	l Notebooks & Tablet Compute //index.cfm?fuseaction=find_a_	rs for the latest informati product.showProductGr	on: oup&pgw_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 Plus G2 ITG	Logo		
Model Number	20WH		Lonovo	
Issue Date	2021/4/29		Lenovo.	
Additional information				

(d)	Year of manufacture:				2021
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 Catego enable	ry and capability adjust	ments applied when a	II 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]	1024GB			
ents ting	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
adjustm ring tes	Discrete television tuner	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete Audio Card	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capa app	Discrete graphics Card(s) [number / #]	NO #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	# <u>:</u> (Yes / No)
	Category of discrete graphics Card(s)	NA			
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)	15.30			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);			l	4.9
(h)	Sleep mode power demand (Watts);				0.49
(i)	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);		NA
(j)	Off mode power demand (Watts);				0.38
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		NA
(I)	Internal power supply efficiency at 10 %	, 20 %, 50 % and 100 °	% of rated output powe	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
(m)	External power supply efficiency (if appl	icable)*:			
	Average active efficiency: 65w:88.45%		89.42%, 89.44%		
(0)	*internal note: show values for all available external p Minimum number of loading cycles that		and (applies only to n	otebook computers):	300 cycles
(p-1)	Measurement methodology used to dete	ermine information mer	tioned in points (I) – ir	nternal PSU efficiency	

(p-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 metho	dology used to determine information mentioned in p <i>≥</i> 70% of Cmin	points (o) – loading cycles batteries:					
(p-4)		dology used to determine information mentioned in r Point P9.1 in the Product IT Eco Declaration: IEC 6						
(q)	Sequence of steps for	or achieving a stable condition with respect to power	demand::					
	Power on -> Wait 5 minutes ->Stable condition							
(r)	Description of how s	leep and/or off mode was selected or programmed:						
		Begin menu -> Power -> Select sleep or o	off mode					
(s)	Sequence of events off mode:	required to reach the mode where the equipment au	tomatically changes to sleep and/or					
		NA						
(t)		te condition before the computer automatically re- s not exceed the applicable power demand requirement		30min				
(u)		r a period of user inactivity in which the compute wer power demand requirement than sleep mode (ir		NA				
(v)	Length of time befo	ore the display sleep mode is set to activate after	user inactivity (in minutes):	10min				
(w)	Information on the e	nergy-saving potential of power management functio	nality: <i>Refer to User Guide</i>					
(x)	User information on	how to enable the power management functionality:	Refer to User Guide					
(z)	Test parameters for the electricity supply used for electrical te	•	strumentation, set-up and circuits					
		230V50HZ-2%-Edition 2.0, 2011-01, Section	4, IEC62301					
Additio	nal Notebook Batter	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⁾		, and a second sec				
Internal	/built-in Battery							
Externa	I/detachable Battery							
Bios Ba	ickup Battery							
Other:								
Addition	nal information	1	1					
) he battervlie	est in this product cannot be e	asily replaced by users themselves.						
кумулаторн	ата[ите] батерия[и] в този п	родукт не може да се замени[ят] лесно от самите потребител er sustituidas fácilmente por los propios usuarios.	пи.					
ýměnu bate	rie/baterií v tomto výrobku by	neměli provádět sami uživatelé.						
		teriet/batterierne i dette produkt. können nicht ohne weiteres vom Benutzer selbst ausgetauscht v	verden.					
asutajad ei	saa selle toote akut/akusid ise							
a/les batteri	e(s présente(s) dans ce produ	it ne peuvent être facilement remplacée(s) par les utilisateurs et	ıx-mêmes.					
	nože lako zamijeniti Bateriju sa batterie in questo prodotto no	am u ovom proizvodu. n può/possono essere facilmente sostituita/e dall'utente.						
ietotāji paši	nevar nomainīt šā ražojuma a	kumulatoru(-us).						
termék akk		elhasználó nem tudja egyedül egyszerűen kicserélni.						
	tteriji f'dan il-prodott ma tistax] i dette produktet kan ikke let	′jistgħux tiģi/jiģu sostitwita/i mill-utenti stess. t erstattes av brukerne selv.						
e batterij(er	n) in dit product is (zijn) door d	e gebruiker niet gemakkelijk vervangbaar.						
ou as bater	rias deste produto não podem	wymienić baterii w tym produkcie. ser facilmente substituídas pelos próprios utilizadores.						
	riile) din acest produs nu poat tomto výrobku nemôže vymie	e (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși. ňat používateľ.						
		mi ne morejo zlahka zamenjati.						

Tämän tuottéen 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.