



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 onts given in this declaration.
Type of product *	Notebook
Commercial name *	IP 5 Chrome 16IAU7
Model number *	82V8,82V9
Issue date *	2022-8-31
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 nun	nber *	82V8,82V9	Logo	Lend)\/C	
Issue date	*	2022-8-31		Leik		тн
Product 6	environi	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1		us substances and preparations				
		do comply with current European RoHS Directive. (See legal reference and NOTE	B1)	\boxtimes		
P1.2*		do not contain Asbestos (see legal reference). tt: Legal reference has no maximum concentration value.				
	hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), mofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no mation values.				
P1.4*		do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychl (PCT) in preparations (see legal reference).	lorinated			
P1.5*		do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carl ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	bon atoms in th	ne 🔀		
	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). ht: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	ek 🔀		
P1.7*	REACH A	Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):			
P2	Batteries					
P2.1*		duct 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			
P2.2*	Batteries reference	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See lega	al 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conform	nity verification & Eco design (ErP)				
	The Decl	luct is CE-marked to show conformance with applicable legal requirements (see legal arequirements) (see legal arequirements): www.lenovo.com/us/en/compliance/eu-doc for EU; www.lenovo.com/us/en/compliance/uk-doc for UK	gal reference).			
P3.2*	The prod	uct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	Required	I information is;				
P5		packaging				
		ng and packaging components do not contain more than 0,01% lead, mercur	v. cadmium a	nd 🔀		
	hexavale	nt chromium by weight of these together.				
	used (se	saging materials are marked with abbreviations and numbers indicating the nature elegal reference).		. , 🔼		
	(see lega	uct packaging material is free from ozone depleting substances as specified in the ${\tt N}$ al reference).	Montreal Protoc	col 🔀		
		tt: Legal reference has no maximum concentration values.				
		nt information				
P6.1*	ıntormatio	on for recyclers/treatment facilities is available (see legal reference).				

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	* 82V8,82V9	Logo	Lon	21/0	
Issue date *	2022-8-31		Lend) ₁₈₁
Product env	ronmental attributes - Market requirements (See General NOTE GN	l below)			
	vironmental conscious design		Requirer		
	andatory to fill in. Additional information regarding each item may be found under P14. ign, Disassembly, recycling		Yes	No	n.a.
	s that have to be treated separately are easily separable				
	tic materials in covers/housing have no surface coating.			X	H
	tic parts > 100 g consist of one material or of easily separable materials.				\dashv
	tic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			\forall	\overline{H}
	tic parts are free from metal inlays or have inlays that can be removed with commonly	/ available tools.		\overline{H}	H
	els are easily separable. (This requirement does not apply to safety/regulatory labels).			\forall	$\overline{\Box}$
	duct lifetime				
P7.7* Upg	rading can be done e.g. with processor, memory, cards or drives				
P7.8* Upg	rading can be done using commonly available tools				
P7.9 Spa	re parts are available after end of production for: 5 years				
P7.10 Serv	rice is available after end of production for: 5 years				
	erial and substance requirements				
	duct cover/housing material type (e.g. plastics, metal, aluminum):				
	erial type: PC+ABS Material type: PC+ABC+15% tac lation materials of external electrical cables are PVC free.				
	lation materials of external electrical cables are PVC free.			\square	+
	rnal plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm)	bromine and 0.10	% 🔀		\dashv
	that plastic casing/cover parts > 25 g contain no more than 6,176 weight (1000 ppm) th (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flar			ш	Ш
	vinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine	in parts containin	g		
	e than 25% post-consumer recycled content.				
as d	ted circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g efined in IEC 61249-2-21. (See 1NOTE B2)	_	n 📙		
Mar	ne retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4 king: FR(40)				
	1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without				
	BBPA (additive), TBBPA (reactive) (See NOTE B3), Other: DOPO , CAS #: 35 9			Ш	Ш
	2: Chemical specifications of flame retardants in printed circuit boards (without compo	nents) > 25 g			
acco	ording ISO 1043-4:		Ш	Ш	Ш
P7.18 Alt.	1				
	ne retarded plastic parts >25g contain the following flame retardant substance training above 0.1%:	es/preparations i	in 🔀		
	mment: No legal limits exist, this is a market requirement.				
	hemical name: halogen-free organic phosphorus compound CAS #: confidential	1			
_	hemical name: CAS #: hemical name: CAS #:				
	hemical name: CAS #:				
Alt.					
Che	mical specifications of flame retardants in plastic parts >25g according ISO 1043-4:			Ш	Ш
	astic parts > 25 g, flame retardant substances/preparations above 0,1% are used whighed the following Risk phrases; confidential and Hazard statements:confidential	ch have been	\boxtimes		
	source(s) for these classifications is/are found at (add URL(s)): , (See no	te B5)			
	consumer recycled plastic material content is used in the product (See Note B6):	,			
If YE	ES; at least one of the two alternatives below shall be answered; Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material conte a percentage of total plastic by weight) is 3.21%.	ent (calculated as			
or b)	The weight of recycled material is 16.6 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.

Model number *	82V8,82V9	Logo	Lanava
Issue date *	2022-8-31		rei 1000
•		•	•

Product environmental attributes - Market requirements (continued)	Requir	remen	t met
Item	Yes	No	n.a.

Material and subs	stance requirements	(continued)			
	stance requirements naterial content is used	d in the product (See N	IOTE B7):		
		es below shall be answ			ш
•			,	ated as a percentage of	
total plastic b			•	, ,	
or					
	the biobased plastic	material is g. less than 0,1 mg/lamp	<u> </u>		$\overline{}$
	specify: Number of la		num mercury content p	er lamp: mg	
P8 Batteries	'			1 3	
P8.1* Battery chemical c	omposition: LI-ION Po	olymer			
	tion (See NOTE B8)				
		ls or energy consumpt		T	
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 *	Ш
Category 1					
Short Idle State - WOL Enabled	5.01 W	5.16 W	5.00 W	ENERGY STAR Computers V8 (Pidle)	
Long Idle State - WOL Enabled	1.15 W	1.17 W	1.20 W	ENERGY STAR Computers V8 (Pidle)	
Sleep (S3) - WOL Enabled	0.40 W	0.40 W	0.44 W	ENERGY STAR Computers V8	
Off (S5) - WOL Enabled	0.31 W	0.31 W	0.34 W	(P _{sleep}) ENERGY STAR Computers V8 (P _{off})	
Category 2				(Foff)	
Short Idle State - WOL Enabled	5.17 W	5.12 W	5.20 W	ENERGY STAR Computers V8 (P _{idle})	
Long Idle State - WOL Enabled	1.39 W	1.40 W	1.48 W	ENERGY STAR Computers V8 (Pidle)	
Sleep (S3) - WOL Enabled	0.34 W	0.34 W	0.38 W	ENERGY STAR Computers V8 (P _{sleep})	
Off (S5) - WOL Enabled	0.22 W	0.22 W	0.25 W	ENERGY STAR Computers V8 (Poff)	
EPS No-load	0.06 W	0.06 W	0.06 W		
(External power supply / charger plugged in the wall outlet but disconnected from the product.)					
PTEC *	W	W	W		\boxtimes
Typical Energy Consumption					
ETEC *	16.08(Cat1);	16.49(Cat1);	16.28(Cat1);	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$	
Annual Energy Consumption	16.33(Cat2) kWh/year	16.21(Cat2) kWh/year	16.67(Cat2) kWh/year	+ P _{sleep} x 0.35 + P _{long_idle} x 0.10+ P _{short_idle} x 0.30)	
				led; P _{idle} : Idle State - WOL Enabled	
External Power Supply Efficien					П
Display resolution * : 4.096 me			·	2560*1600	Ħ
Default time to enter energy sa		1			$\overline{}$
		ion is provided with the	product.		Ħ
	class (monitors only):	•			X

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

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

P10	Emissions				
	Noise emission	on – Declared according to ISO 9296 (See NOTE	B9)		
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, L _{WA,c} (B)		
Ì	Idle	* SSD:Idle	* 2.2		
ĺ	Operation	* SSD: Operating	* 3.3		
1	Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$			
	Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$	24.5 (operator position desktop – operating)		
	Measured acco	ording to: SO 7779 ECMA-74			
		Other (only if not covered by ECMA-74)			

Model nui	nber *	82V8,82V9				Logo	Long	1/0	
Issue date	*	2022-8-31					Lenc		
Product	environr	nental attributes	- Market requireme	ents (cont	inued)		Require	ment	met
Item			•	,	,		Yes	No	n.a.
	Electron	magnetic emission	s						
P10.4		er display meets the (s): MPR-II(3 pin A		requency ele	ectromagnetic field	ls of the following volunta	ary 🔀		
P12		mics for computin							
P12.1*	The disp	play meets the ergor	nomic requirements of I	ISO 9241-3	07 for visual displa	ay technologies.	\square		
P12.2*	The phy	sical input device m	eets the requirements	of ISO 9995	and ISO 9241-41	10.			
P13	Packagi	ing and document	ation						
P13.1*	Product Product								
P13.2*	Product	plastic primary pack	kaging is free from PVC	C.			\boxtimes		
P13.3*		duct primary corrug er recovered fiber c		aging, speci	fy the contained	percentage of minimum	post-		
P13.4*		media for user and ic ⊠, Paper ⊠, C	product documentation other	n (tick box):					
P13.5	Ùser and		tem if paper documenta ation on paper media is		ree:				
	Totally c	hlorine-free					\boxtimes		
	Element	al chlorine-free					\square		
	Process	ed chlorine-free					Ħ		
P14	Volunta	ry programs							
P14.1			irements of the followin	ng voluntary	program(s):				
	Eco-labe	el:	Criteria version: 8.0 Criteria version: Criteria version:		Date: 2022/8/31 Date: Date:	Product category: 1/2 Product category: Product category:			
P15		nal information (Se							
P9						tested product configu			
	the info supplied informa Accoun	rmation contained r's knowledge avai tion. The informati t Representative fo	in this document. All ilable at the time of coion provided here is a per more information.	II information of the second s	on provided by su and supplier sha e and provided fo	ranties whether expres upplier in this documen II have no obligation to or informational purpos	t is provided update such	based	on
P9			Notebooks & Tablet (//index.cfm?fuseactio			ormation: oductGroup&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	IP 5 Chrome 16IAU7	Logo	
Model number *	82V8,82V9		Lonovo
Issue date *	2022-8-31		Lenovo.
Additional information			

d)	Year of manufacture:				2022
;)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are
)	Etec value (kWh) per ErP Lot 3 Categor enable	ry and capability adjust	tments applied when a	all 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]	8			
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)				
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)	6.17			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
3)	Idle state power demand (Watts);			ı	A : 1.64
1)	Sleep mode power demand (Watts);				A : 0.38
)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		A:NA
)	Off mode power demand (Watts);				A : 0.29
()	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		A : NA
)	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: 87,98%,88,6	3%,88,83%			
	*internal note: show values for all available external p				
0)	Minimum number of loading cycles that	the batteries can withs	tand (applies only to n	otebook computers):	300CYCLES
o-1)	Measurement methodology used to dete	ermine information mer	ntioned in points (I) – in	nternal PSU efficiency:	:
o-2)	Measurement methodology used to dete	ermine information men	ntioned in points (m) –	external PSU efficienc	cv.

(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: EN 61960 measurement methodology				
(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:				
	EN 62623:2013 measurement methodology				
(q)	Sequence of steps for achieving a stable condition with respect to power demand::				
	EN 62623:2013 measurement methodology				
(r)	Description of how sleep and/or off mode was selected or programmed:				
	EN 62623:2013 measurement methodology				
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:				
refer to power management, 30mins automatically reaches sleep mode					
(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):			8.5	
(u)	Length of time after a period of user inactivity in which the computer automatically reaches a power			NA	
(v)	mode that has a lower power demand requirement than sleep mode (in minutes): Length of time before the display sleep mode is set to activate after user inactivity (in minutes): 7			7.5	
(w) Information on the energy-saving potential of power management functionality:					
refer to user manual					
(x)	User information on how to enable the power management functionality:				
refer to user manual					
(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:				
230V, 50GHz, Total Harmonic Distortion <2 %					
Additional Notebook Battery 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/built-in Battery					
External/detachable Battery					
Bios Backup Battery					
Other:					
Additional 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] 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. Lietotăji paši nevar nomainīt šā ražojuma akumulatoru(-us). Šio gaminio baterijos [baterijų] 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 łatwy 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 uşor înlocuită (înlocuite) de utilizatorii înşişi. Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ. Baterij/baterije v tem izdelku uporabniki sami 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.