

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			
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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 IdeaPad S145-15/Lenovo V15			
Model number *	81MV, 81MX, 81N3, 81UT, 81UU, 81V7, 81VD, 81VE, 81W8, 81W9, 81W8, 81XM, 81YD, 82C5			
Issue date *	2019-10-31			
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 n	umber *	81W8, 81W9, 82C5 Logo			
Issue da	ate *	2019-10-31	Leng	ovo	DTM
Produc	t environ	mental attributes - Legal requirements	Require		t met
Item			Yes	No	n.a.
P1		ous substances and preparations			
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\boxtimes		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.			
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*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated /l (PCT) in preparations (see legal reference).	\boxtimes		
P1.5*	Products	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in t ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	he 🔀		
P1.6*	(see leg	th direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/wee al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	эк 🔀		
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*	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)	\boxtimes		
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See leg e)	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 legal reference). laration of Conformity can be requested at: <i>https://www.lenovo.com/us/en/compliance/eu-doc</i>			
P3.2*	The proc (see leg	duct complies with the Eco design requirements for energy-related products, al reference).	\boxtimes		
	Require	d information is; given in item P15 or added to this document,	\bowtie		
		available at: https://www.lenovo.com/us/en/compliance/eco-declaration	<u> </u>		
P5		packaging			
P5.1*	hexavale	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium a ent chromium by weight of these together.			
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature of the material e legal reference).			
P5.3*	(see leg	duct packaging material is free from ozone depleting substances as specified in the Montreal Proto al reference). nt: Legal reference has no maximum concentration values.	col 🔀		
P6		nt 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 nu	umber *	81W8, 81W9, 82C5	Logo			
Issue da	te *	2019-10-31		Len	ovo	
Product		mental attributes - Market requirements (See General NOTE GN	below)	_		
		onmental conscious design		Require		
Item P7		tory to fill in. Additional information regarding each item may be found under P14. Disassembly, recycling		Yes	No	n.a.
P7.1*		at have to be treated separately are easily separable				
P7.2*		naterials in covers/housing have no surface coating.				-#-
P7.3*		arts > 100 g consist of one material or of easily separable materials.				
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			┝┝	╞
P7.5			wailable toole		<u> </u>	<u> </u>
	•	arts are free from metal inlays or have inlays that can be removed with commonly a			<u> </u>	<u> </u>
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).				
P7.7*		lifetime ng can be done e.g. with processor, memory, cards or drives				
					<u> </u>	<u> </u>
P7.8*		ng can be done using commonly available tools				<u> </u>
P7.9		arts are available after end of production for: 5 years				<u> </u>
P7.10		s available after end of production for: 5 years				
D7 44*		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum): type: PC+ABS Material type: AL-Mg				
P7.12		n materials of external electrical cables are PVC free.			\square	
P7.13		n materials of internal electrical cables are PVC free.		- H		H
P7.14	External	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b	romine and 0.1	%		-#-
	weight (' polyvinyl	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 an 25% post-consumer recycled content.	e retardants, an	nd 🗖		
P7.15	Printed of	circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g ed in IEC 61249-2-21. (See 1NOTE B2)	are low haloge	n	\square	
P7.16	Flame re Marking:	tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		\square		
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c PA (additive), TBBPA (reactive) (See NOTE B3), Other: <i>Brominated Epoxy</i> 8-7		:		
		nemical specifications of flame retardants in printed circuit boards (without compon g ISO 1043-4:	ents) > 25 g			\square
P7.18	concentr Comm	etarded plastic parts >25g contain the following flame retardant substance ations above 0.1%: ent: No legal limits exist, this is a market requirement. ical name: <i>BPADP</i> , CAS #: <i>181028-79-5</i>	s/preparations	in 🔀		
	Alt. 2 Chemica	al specifications of flame retardants in plastic parts >25g according ISO 1043-4:				\boxtimes
P7.19	•	parts > 25 g, flame retardant substances/preparations above 0,1% are used which	n have been	\boxtimes		
	0	and Hazard statements: rce(s) for these classifications is/are found at (add URL(s)): EEC (See note B5)	cil Directive			
P7.20*	Postcons If YES; a a) Of t a pe or	sumer recycled plastic material content is used in the product (See Note B6): at least one of the two alternatives below shall be answered; total plastic parts' weight > 25 g, the postconsumer recycled plastic material conter ercentage of total plastic by weight) is 0%.	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 *	81W8, 81W9, 82C5	Logo	
Issue date *	2019-10-31		Lenovo
Product environ	nental attributes - Market requirements (continued)		Requirement met

Item

Requirement met Υ

a.
a.

	Material and sub	stance requirements	(continued)		
P7.21*			d in the product (See No	OTE B7):	
	-		es below shall be answe	-	
	,			,	ated as a percentage of
		y weight) is 0 %			
	or	, ,			
		f the biobased plastic			
P7.22*			less than 0,1 mg/lamp.		
DO		specify: Number of la	mps: and maxim	um mercury content pe	er lamp: mg
P8.1*	Batteries	omposition: LLION P	olymer battery and lith	ium motal battory	
			Diyiner Dattery and nu	num-metal battery	
P9 P9.1		tion (See NOTE B8)	ls or energy consumption	ana ara rapartad:	
Energy m		Power level at	Power level at	Power level at	Reference/Standard for energy
Energy in	ouc	100 V AC	115 V AC	230 V AC	modes and test method *
Peak (On	-max)	65 W	65 W	65 W	Full load
<u>Catego</u>	<u>ry 1</u>				
Short Idle	e State - WOL	5.88 W	5.97 W	6.02 W	Use for ENERGY STAR V7.1
Enabled					registration (P _{idle})
Laws M.	04-4- 14/01	2.50.14/	0.5014/	2 (7))/	• • • •
Long Idle Enabled	e State - WOL	3.56 W	3.52 W	3.47 W	Use for ENERGY STAR V7.1 registration (P _{idle})
Enableu					Tegistration (Fidle)
Sleep (S3	3) - WOL Enabled	0.68 W	0.67 W	0.68 W	Use for ENERGY STAR V7.1
					registration(P _{sleep})
Sleep (S3	3) - WOL Disabled	0.68 W	0.67 W	0.68 W	Reference
	-				
Off (S5) -	WOL Enabled	0.53 W	0.55 W	0.58 W	Use for ENERGY STAR V7.1
					registration(P _{off})
Off (S5) -	WOL Disabled	0.53 W	0.55 W	0.58 W	Use for ErP
EPS No-lo	aad	0.107 W	0.108 W	0.108 W	
		0.107 VV	0.100 VV	0.700 VV	
	r supply / charger plugged in the lisconnected from the product.)	14/		14/	
PTEC *	norau Consumption	W	W	W	
ETEC *	nergy Consumption	21.81 kWh/year	22.05 kWh/year	22.22 kWh/year	ETEC = (8760/1000) x (Poff x 0.25
-	nergy Consumption	Litter Kvvii/year			+ $P_{sleep} \times 0.35 + P_{long_ldle} \times 0.10+$
	55				Pshort_Idle x 0.30)
					ed; P _{idle} : Idle State - WOL Enabled
External F	Power Supply Efficier	ncy Level (Internationa	I Efficiency Marking Pro	otocol) * : VI	
Display re	esolution * : 8.294 me	egapixels			
Default tir	me to enter energy sa	ave mode: 10 minutes			
			ion is provided with the	product.	
P9.3		class (monitors only):			
P10	Emissions				
		Declared according to	o ISO 9296 (See NOTE	B9)	
P10.1		Node description			it A-weighted sound power level, <i>L_{WA,c}</i> (B)
	Idle *	HDD:Idle		* 2.6	
	Operation *	HDD: Operating		* 4.1	H H
	Other mode	Declared A-weighted sour	ad pressure level (dB) $L_{p{\sf Am}}$		tion desktop – idle)
	Other mode	veciared A-weighted sour	ad pressure level (dB) $L_{p{ m Am}}$	32.3 (operator posi	tion desktop – operating)
	Measured accordi	ng to: 🔀 ISO 7779 🛛	ECMA-74		
		Other	(only if not covered 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; $see \ \underline{http://www.ecma-international.org/publications/standards/Ecma-370.htm}$

Model nu	ımber *	81W8, 81W9, 82	2C5			Logo			
Issue dat	te *	2019-10-31					Len	ovo	тн
Product	environ	mental attribute	es - Market requirements	(continued)			Requi	ement	t me
Item							Yes	No	n.a
		magnetic emission							
P10.4	program	(s): MPR-II(3 pin	he requirement for low frequer AC adapter only)	ncy electromagneti	ic fields of the fol	lowing volur	ntary 🔀		
P12		mics for comput							
P12.1*			onomic requirements of ISO 9			gies.			
P12.2*	The phy	sical input device	meets the requirements of ISC	O 9995 and ISO 92	241-410.		\square		
P13	Packag	ing and docume	ntation						
P13.1*	Product Product Product	packaging materi packaging materi packaging materi	al type(s): <i>paper(manual)</i> al type(s): <i>corner paper</i> weig al type(s): <i>EPE</i> weig	ht (kg): 0.355 weight (kg): (ht (kg): 0.042 ht (kg): 0.094	0.050				
P13.2*	Product	plastic primary pa	ckaging is free from PVC.				\square		
P13.3*	consum	er recovered fiber			ained percentage	of minimu	m post-		
P13.4*		media for user an ic 🔀, Paper 🔀,	d product documentation (tick Other	box):					
P13.5	Ùser an		item if paper documentation ntation on paper media is chlo						
	,	chlorine-free al chlorine-free							
	Process	ed chlorine-free							
P14	Volunta	ry programs							
P14.1			quirements of the following vol	untary program(s):	:				
		Y STAR® el: EPEAT	Criteria version: 7.1 Criteria version:	Date: Date:		category: 1 category:			
	Eco-lab	el:	Criteria version:	Date:	Product	category:			
P15		nal information (
P9	Energy	consumption of	specific configuration may	vary; description	of the tested pr	oduct conf	iguration:		
	NOTE: informat knowled	Supplier makes no ion contained in th ge available at the here is approxim	representations, guarantees, his document. All information p e time of completion, and supp ate and provided for information	assurances or wa provided by supplie plier shall have no	rranties whether er in this docume obligation to upd	express or in t is provide ate such info	mplied, regard d based on su ormation. The	pplier's informa	tion
P9	See Ene	ergy Star Qualified	Notebooks & Tablet Compute /index.cfm?fuseaction=find_a			_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 IdeaPad S145-15IIL/Lenovo V15-IIL	Logo		
Model number *	81W8, 81W9, 82C5			
Issue date *	2019-10-31		Lenovo.	
Additional information				

P7.1.1	7.1.1 Product environmental attributes				
(d)	Year of manufacture:				2019
(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	y and capability adjust	ments applied when a	Il 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]	12			
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	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	# <i>:</i> (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)				
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)	11.64			
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);	·		·	A: 3.43
(h)	Sleep mode power demand (Watts);				A : 0.54
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		A : 0.54
(j)	Off mode power demand (Watts);				A : 0.41
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		A : 0.41
(I)	Internal power supply efficiency at 10 %,	, 20 %, 50 % and 100 §	% of rated output power	er (if applicable):	
	10% 20% 50%	100% Avera	ige S		
(m)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: 88.62%				
(0)	*internal note: show values for all available external po Minimum number of loading cycles that t		and (applies only to n	otebook computers).	
(0)	Winning the second s	ine batteries can withs		otebook computers).	300 CYCLES
(p-1)	Measurement methodology used to dete	rmine information mer NA	tioned in points (I) – ir	nternal PSU efficiency:	
(p-2)	Measurement methodology used to dete EN 5056	rmine information mer 53:2011 measuremen		external PSU efficiend	sy:

power as defined ir	EN 50563:2011 measurement met	ed in points (o) – loading cycles batteries:	
	odology used to determine information mentione Point P9.1 in the Product IT Eco Declaration: EN 62623:2013 measurement met	ed in maximum, idle, sleep, off mode	
) Sequence of steps	for achieving a stable condition with respect to p EN 62623:2013 measurement met		
) Description of how	sleep and/or off mode was selected or programm EN 62623:2013 measurement met		
Sequence of events off mode:	s required to reach the mode where the equipme	nt automatically changes to sleep and/or	
	fer to power management, 30mins automatica	ally reaches sleep mode	
condition which doe	ate condition before the computer automatica es not exceed the applicable power demand requ	irements for sleep mode (in minutes):	30
mode that has a lo	er a period of user inactivity in which the com wer power demand requirement than sleep mod	de (in minutes):	NA
	ore the display sleep mode is set to activate a energy-saving potential of power management fu refer to user manual		10
:) User information or	how to enable the power management function refer to user manual	ality:	
	r measurements: — test voltage in V and frequer y system, — information and documentation on t esting: 230V, 50GHz, Total Harmonic Disto	he instrumentation, set-up and circuits	
dditional Notebook Batte	ery Information:		
	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a
	The battery[ies] in this product cannot be energy replaced by users themselves. ¹⁾	asily	
ternal/built-in Battery			
xternal/detachable Battery			
ios Backup Battery			
ther:			
dditional information			
иулаторната[ите] батерия[и] в този paterías de este producto no pueden ěnu baterie/baterií v tomto výrobku b eren kan ikke uden videre udskifte b Akku/die Akkus dieses Produkts kan itajad ei saa selle toote akut/akusid i	atteriet/batterierne i dette produkt. i/können nicht ohne weiteres vom Benutzer selbst ausgetau	ıscht werden. στες	