

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 *	Lenovo Global Environmental Affairs				
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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 Legion 5 15"					
Model number *	82B5, 82B6					
Issue date *	2020-4-3					
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 number *		82B5, 82B6	Logo			
Issue dat	:e *	2020-4-3		Lena		
Product	environ	mental attributes - Legal requirements		Require	men	t met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	EB1)	\square		
P1.2*	Products Commer	\boxtimes				
P1.3*	Comment: Legal reference has no maximum concentration value. Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1- trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.					
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych /l (PCT) in preparations (see legal reference).		\boxtimes		
P1.5*		s 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).	oon atoms in the			
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.					
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): https://www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure					
P2	Batterie	S				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	he disposal	\boxtimes		
P2.2*	Batteries reference	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See legal	\boxtimes		
P2.3*	Batteries	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 aration of Conformity can be requested at: https://www.lenovo.com/us/en/compliar		\boxtimes		
P3.2*		duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	Required	d information is; given in item P15 or added to this document, available at: <i>https://www.lenovo.com/us/en/compliance/e</i>	an declaration	\boxtimes		
D5	Draduat		co-declaration			
P5.1*		packaging ng and packaging components do not contain more than 0,01% lead, mercur	, cadmium and	1		
	hexavale	ent chromium by weight of these together.				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature e legal reference).	,	,		
P5.3*	(see lega	luct packaging material is free from ozone depleting substances as specified in the N al reference). nt: Legal reference has no maximum concentration values.	Iontreal Protoco			
P6		nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		\boxtimes		

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 *		82B5;82B6	Logo				
Issue dat	te *	2020-4-3		Len	Lenovo		
Product		mental attributes - Market requirements (See General NOTE GN					
		onmental conscious design		Require			
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.	
P7.1*		Disassembly, recycling thave to be treated separately are easily separable					
						<u> </u>	
P7.2*		naterials in covers/housing have no surface coating.		<u> </u>			
P7.3*		arts > 100 g consist of one material or of easily separable materials.		\square			
P7.4*	-	arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		\square			
P7.5	Plastic p	arts are free from metal inlays or have inlays that can be removed with commonly a	available tools.	\boxtimes			
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).		\boxtimes			
	Product lifetime						
P7.7*	Upgradir	ng can be done e.g. with processor, memory, cards or drives		\boxtimes			
P7.8*	Upgradir	ng can be done using commonly available tools		\square			
P7.9	Spare parts are available after end of production for: 3 years						
P7.10	Service is available after end of production for: 3 years						
		and substance requirements					
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):					
	Material	type: PC+ABS Material type:					
P7.12	Insulatio	n materials of external electrical cables are PVC free.			\times		
P7.13	Insulatio	n materials of internal electrical cables are PVC free.			\times		
P7.14	External	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b	promine and 0,1%				
	weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame	e retardants, and				
		chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i	n parts containing	J			
P7.15		In 25% post-consumer recycled content.] I h				
	as define	eircuit boards, PCBs (without components) are low halogen: all PCBs > 25 g ed in IEC 61249-2-21. (See 1NOTE B2)					
P7.16	Marking:						
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without additive), TBBPA (reactive) (See NOTE B3), Other: , CAS #:	components):			\boxtimes	
		nemical specifications of flame retardants in printed circuit boards (without compon-	anta) > 25 a	\boxtimes			
		g ISO 1043-4: <i>FR(16)</i>	ents) > 25 g				
P7.18	Alt. 1					\square	
		etarded plastic parts >25g contain the following flame retardant substance	s/preparations ir				
	concentr	ations above 0.1%:					
	A I+ - 2						
	Alt. 2 Chemica	I specifications of flame retardants in plastic parts >25g according ISO 1043-4: FR	(40)		_		
	Onernica		(40)	\bowtie			
P7.19	In plactic	parts > 25 g, flame retardant substances/preparations above 0,1% are used which	have been				
17.15	•	I the following Risk phrases; and Hazard statements:	I Have been				
	•	rce(s) for these classifications is/are found at (add URL(s)): European Count	cil Directive				
	67/548/E						
P7.20*		sumer recycled plastic material content is used in the product (See Note B6):			\mathbf{X}		
	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 a		nt (calculated as				
	•	ercentage of total plastic by weight) is 0%.					
	or b) The	weight of recycled material is g.					
	~, 110						

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

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 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 *	82B5, 82B6	Logo	
Issue date *	2020-4-3		Lei Iovo,

Product environmental attributes - Market requirements (continued)
Item

Requirement met Yes No n.a.

	Material and sub	stance requirements	(continued)		
P7.21*			d in the product (See N	IOTE B7):	
P7.22*		free from mercury, i.e specify: Number of la	. less than 0,1 mg/lamp mps: and maxin). 1um mercury content p	er lamp: mg
P8	Batteries		·	· · ·	
P8.1*	Battery chemical of	composition: LI-ION P	olymer battery and lit	hium-metal battery	
P9		tion (See NOTE B8)			
P9.1			els or energy consumpt	ions are reported:	
Energy mo		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)	170 W	170 W	170W	Full load
Categor	<u>y 2</u>				
Short Idle Enabled	State - WOL	11.72W	12.54W	13.85 W	Use for ENERGY STAR V8.0 registration (P _{idle})
Long Idle Enabled	State - WOL	8.79W	9.65 W	9.79 W	Use for ENERGY STAR V8.0 registration (P _{idle})
Sleep (S3)	- WOL Enabled	0.57 W	0.60W	0.63 W	Use for ENERGY STAR V8.0 registration(P _{sleep})
Off (S5) - V	VOL Enabled	0.41W	0.41W	0.42 W	Use for ENERGY STAR V8.0 registration(P _{off})
Off (S5) - V	VOL Disabled	0.41W	0.41W	0.42 W	Use for ErP
EPS No-loa (External power s	ad upply / charger plugged in the connected from the product.)	0.113 W	0.114 W	0.115W	
PTEC *	ergy Consumption	W	W	W	
ETEC * Annual Ene	ergy Consumption	41.15kWh/year	44.15kWh/year	47.83 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$ + $P_{sleep} \times 0.35 + P_{long_ldle} \times 0.10 + P_{short_ldle} \times 0.30)$
			OL Enabled; P _{sleep} : Slee		led; P _{idle} : Idle State - WOL Enabled
External Po	ower Supply Efficier	ncy Level (Internationa	al Efficiency Marking Pr	otocol) * : VI	
Display res	olution * :2.07 meg	apixels			
Default time	e to enter energy sa	ave mode: 10 minutes			
P9.2*	Information about	the energy save funct	tion is provided with the	product.	
P9.3		class (monitors only):			
P10	Emissions				
	Noise emission -	- Declared according	to ISO 9296 (See NOT	E B9)	
P10.1	Mode M	Node description		Statistical upper lin	nit A-weighted sound power level, L _{WA,c} (B)
	Idle *	Idle (Operating)		* 2.5	
		HDD:Operation		* 2.7 5	
	Other mode	Declared A-weighted sou	nd pressure level (dB) $L_{p{ m Ar}}$	a 20.2 (operator pos	ition desktop – idle)
	I		nd pressure level (dB) L_{pAl}	42.2 (operator pos	ition desktop – operating)
	Measured accordi	ng to: 🔀 ISO 7779	ECMA-74 (only if not covered b	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 nu	umber *	82B5;82B6			Logo			
Issue dat	te *	2020-4-3				Leno	VO	ŤĦ
Product	environ	mental attribu	tes - Market requirements (continued)		Require	ment	met
Item						Yes	No	n.a.
		magnetic emiss						
P10.4	program	i(s): MPR-II(3 pi	the requirement for low frequen n AC adapter only)	cy electromagnetic field	s of the following volun	tary 🔀		
P12		mics for compu						
P12.1*		,	gonomic requirements of ISO 92	•		\square		
P12.2*	The phy	sical input devic	e meets the requirements of ISC	9995 and ISO 9241-41	0.	\boxtimes		
P13		Packaging and documentation						
P13.1*	Product Product	Product packaging material type(s): CARTON weight (kg): 0.35 Product packaging material type(s): paper(manual) weight (kg): 0.05 Product packaging material type(s): corner paper weight (kg): 0.046 Product packaging material type(s): EPE weight (kg): 0.086						
P13.2*			ackaging is free from PVC.			\boxtimes		
P13.3*	For pro	duct primary con	rugated fiberboard packaging, er content: 100 %	specify the contained	percentage of minimun			
P13.4*	Specify	media for user a ic 🔀, Paper 🔀	nd product documentation (tick b	pox):				
P13.5	Ùser an		is item if paper documentation u entation on paper media is chlor					
	Element	chlorine-free al chlorine-free ed chlorine-free						
P14	Volunta	ry programs						
P14.1			equirements of the following volu	ntary program(s):				
	Eco-lab Eco-lab	el:	Criteria version: 8.0 Criteria version: Criteria version:	Date: 2019/7/15 Date: Date:	Product category: 2 Product category: Product category:			
P15			(See NOTE B10)					
P9			f specific configuration may v					
	informat knowled	ion contained in ge available at t here is approxi	no representations, guarantees, this document. All information p ne time of completion, and suppl mate and provided for informatio	ovided by supplier in th ier shall have no obliga	is document is provided tion to update such info	based on supp rmation. The int	olier's format	ion
P9	See Ene	ergy Star Qualifie	ed Notebooks & Tablet Compute ps://www.energystar.gov/produc	rs for the latest informat ts/office_equipment/cor	iion: nputers			

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 Legion 5 15ARH05	Logo
Model number *	82B5, 82B6	
Issue date *	2020-4-3	Lenovo
Additional information		

P7.1.1	Product environmental attributes							
(d)	Year of manufacture:				2019			
(e)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display.							
(f)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enable							
		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]			16				
ients sting	Additional internal storage	(Yes / No)	(Yes / No)	<mark>yes</mark> (Yes / No)	(Yes / No)			
capability adjustments applied during testing	Discrete television tuner	(Yes / No)	(Yes / No)	No (Yes / No)	(Yes / No)			
ability a	Discrete Audio Card	(Yes / No)	(Yes / No)	No (Yes / No)	(Yes / No)			
cap app	Discrete graphics Card(s) [number / #]	#: (Yes / No)	#: (Yes / No)	Yes #: 1 (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)							
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled			28.29				
(g)	Idle state power demand (Watts);	·	·	-	9.61			
(h)	Sleep mode power demand (Watts);				0.94			
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.94			
(j)	Off mode power demand (Watts);				0.42			
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.42			
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 9	% of rated output pow	er (if applicable):				
	10% 20% 50%	100% Avera	ige					
(m)	External power supply efficiency (if appli	cable)*:						
	Average active efficiency: 88.15% 88.2	0%						
(0)	*internal note: show values for all available external po Minimum number of loading cycles that t		tand (applies only to p	otobook computero);				
(0)	Minimum number of loading cycles that		tand (applies only to n	olebook computers).	300CYCLES			
(p-1)	Measurement methodology used to dete	rmine information mer NA	tioned in points (I) – ii	nternal PSU efficiency:				
(p-2)	 Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: <i>EN 50563:2011 measurement methodology</i> 							

(p-3)	Measurement metho	dology used to determine information mentioned in EN 50563:2011 measurement method					
(p-4)		dology used to determine information mentioned in Point P9.1 in the Product IT Eco Declaration: EN 62623:2013 measurement method					
(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:						
		er to power management, 30mins automatically r	reaches sleep mode				
(t)		te condition before the computer automatically r		10			
(u)	Length of time after	r a period of user inactivity in which the compute ver power demand requirement than sleep mode (ii)	er automatically reaches a power	NA			
(v)		re the display sleep mode is set to activate after		10			
(w)		nergy-saving potential of power management function refer to user manual					
(x)	User information on I	how to enable the power management functionality: refer to user manual					
(z)		measurements: — test voltage in V and frequency ir system, — information and documentation on the ir sting: 230V, 50GHz, Total Harmonic Distortio	nstrumentation, set-up and circuits				
Addition	nal Notebook Batter	n Information					
Auditio	Idi 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⁾		n/a			
Internal/	built-in Battery						
External	/detachable Battery						
Bios Bac	ckup Battery						
Other:							
Addition	al information		-				
κγμγπατορικά s baterías d (měnu baterí ugeren kan i er Akku/die / asutajad ei s asutajad ei s //les batterie orisnik ne me a batteria/le t etotāji paši n o gaminio ba termék akku batterija/batt atteriet [ene] e batterij(en) żytkownik nie ou as bateria dateria (bateri ateriu(-ie) v t ateri/baterije män tuottee et är inte enk	Tra[итe] δατερινя[и] в този η e este producto no pueden s ie/baterii v tomto výrobku by ikke uden videre udskifte bat Akkus dieses Produkts kann/ aa selle toote akut/akusid ise c(s présente(s) dans ce produ pže lako zamijeniti Bateriju s otatterie in questo prodotto no evar nomainīt šā ražojuma a aterijos [bateriju] pats vartotoj mulátorát/akkumulátorait a f eriji fdan il-prodott ma tistax/ i dette produktet kan ikke let in dit product is (zijn) door d e može sam w latvy sposób as deste produto não podem lie) din acest produs nu poato omto výrobku nemôže vymie v tem izdelku uporabniki sar m akku [akut] ei[vät] ole help ket för kunden att själv byta t	ούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες it ne peuvent être facilement remplacée(s) par les utilisateurs er am u ovom proizvodu. n può/possono essere facilmente sostituita/e dall'utente. kumulatoru(-us). las negali lengvai pakeisti. elhasználó nem tudja egyedül egyszerűen kicserélni. jistgňux tiģi/ijgu 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 înșiși. ňať používateľ. mi ne morejo zlahka zamenjati. seti käyttäjän vaihdettavissa.	werden.				

Annex B1 of ECMA-370 5th edition (Lenovo) 2015-04-08