



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	Lenovo
e-mail address	Alvin L Carter	LEHOVO
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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 *	Legion 5 15ARH7H			
Model number *	82RD			
Issue date *	2022-3-11			
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 *		82RD	Logo	Lend	WO	
Issue dat	e *	2022-3-11		Len	VO	тн
	environ	mental attributes - Legal requirements		Require		met
Item				Yes	No	n.a.
P1		ous substances and preparations				
P1.1*		do comply with current European RoHS Directive. (See legal reference and NOTE	EB1)	$\boxtimes$		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	Products hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachethane, methyl bromide (see legal reference). Comment: Legal reference has no mation values.	lloride, 1,1,1- naximum			
P1.4*	terpheny	edo not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych l (PCT) in preparations (see legal reference).				
P1.5*		edo 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 th	ne 🔀		
P1.6*	Parts wit	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	),5 μg/cm²/wee	k 🔀		
P1.7*	REACH	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	Batterie	S				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with the Information on proper disposal is provided in user manual. (See legal reference)	the disposal			
P2.2*	Batteries	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)		X		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	The prod	luct is CE-marked to show conformance with applicable legal requirements (see leg	gal reference). mail addres	s):		
		vww.lenovo.com/us/en/compliance/uk-doc for UK				
P3.2*		luct complies with the Eco design requirements for energy-related products, al reference).		$\boxtimes$		
		d information is;				
P5		www.lenovo.com/us/en/compliance/eco-declaration				
P5.1*		packaging ng and packaging components do not contain more than 0,01% lead, mercure	/ cadmium a	nd 🔀		
	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). ht: Legal reference has no maximum concentration values.	Montreal Protoc	col 🔀		
P6		nt: Legal reference has no maximum concentration values.  nt information				
P6.1*		on for recyclers/treatment facilities is available (see legal reference).		$\square$		

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 *		82RD Logo		on	21/6	
Issue dat	:e *	2022-3-11	<u> </u>	.en		TH.
Product	environ	mental attributes - Market requirements (See General NOTE GN below	)			
		onmental conscious design	Re	quirer		
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		$\square$		
P7.2*		naterials in covers/housing have no surface coating.			X	Ħ
P7.3*		arts > 100 g consist of one material or of easily separable materials.				Ħ
P7.4*	•	arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		$\overline{\mathbb{X}}$	Ħ	$\pm$
P7.5	·	arts are free from metal inlays or have inlays that can be removed with commonly available	tools.		Ħ	$\pm$
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).			Ħ	$\pm$
	Product	<u> </u>				
P7.7*	Upgradir	ng can be done e.g. with processor, memory, cards or drives				
P7.8*	Upgradir	ng can be done using commonly available tools		X		
P7.9	Spare pa	arts are available after end of production for: 3 years				
P7.10	Service i	s available after end of production for: 5 years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
P7.12		type: PC+ABS Material type: Aluminum  n materials of external electrical cables are PVC free.			$\boxtimes$	$\neg \vdash$
P7.13		n materials of internal electrical cables are PVC free.		+	$\overline{\mathbb{X}}$	+
P7.14		plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine a	and 0.1%	$\overline{M}$		∺
	weight (* polyvinyl	1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retarda chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts of an 25% post-consumer recycled content.	ants, and			
P7.15	Printed of	circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are lowed in IEC 61249-2-21. (See 1NOTE B2)	halogen			
P7.16	Flame re Marking:	etarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:				
P7.17	Alt. 1: C	themical specifications of flame retardants in printed circuit boards > 25 g (without comparts), TBBPA (reactive) (See NOTE B3), Other: , CAS #:	onents):			
		nemical specifications of flame retardants in printed circuit boards (without components) > 2 g ISO 1043-4: FR(16)	5 g			
P7.18	Alt. 1			$\square$		$\Box$
	Flame r	etarded plastic parts >25g contain the following flame retardant substances/prepara rations above 0.1%:	ations in			
	Commo	ent: No legal limits exist, this is a market requirement.				
		ical name: Oligomeric phosphorous compound CAS #:				
		ical name: CAS #: ical name: CAS #:				
		ical name: , CAS #:				
	Alt. 2					
	Chemica	al specifications of flame retardants in plastic parts >25g according ISO 1043-4:				
P7.19	In plastic	parts > 25 g, flame retardant substances/preparations above 0,1% are used which have be	en	$\boxtimes$		egthankowskip
	•	If the following Risk phrases; and Hazard statements: H411; H413			ш	
		rce(s) for these classifications is/are found at (add URL(s)): European Council Dire	ctive			
D7.00*	67/548/E	,				
P7.20*		sumer recycled plastic material content is used in the product (See Note B6): at least one of the two alternatives below shall be answered;			$\bowtie$	
	a) Of t	total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculaterentage of total plastic by weight) is	ated as			
	or b) The	weight of recycled material is				
	b) The	e weight of recycled material is 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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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 * Issue date *	82RD 2022-3-11	Logo	Lenovo
Product environr	mental attributes - Market requirements (continued)		Requirement met
Item			Yes No na

		ostance requirements							
P7.21*	Biobased plastic	Biobased plastic material content is used in the product (See NOTE B7):							
	a) Of total plastic     total plastic		es below shall be answe , the biobased plastic ma		ited as a percentage of				
	or b) The weight	of the highered plactic	motorial is						
P7.22*		of the biobased plastic	less than 0,1 mg/lamp.			$\overline{}$			
1 7.22		d specify: Number of la		um mercury content pe		ш			
P8	Batteries								
P8.1*	Battery chemical	composition: LI-ION P	olymer battery and Litl	hium manganese Dio	xide Battery				
P9		nergy consumption (See NOTE B8)							
P9.1			ls or energy consumption						
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 *	Ш			
Peak (On-I	max)	300 W	300 W	300 W	Full load				
Categor	<u>y 2</u>								
Short Idle Enabled	State - WOL	19.8 W	21.4 W	23.40 W	ENERGY STAR Computers V8.0				
Long Idle : Enabled	State - WOL	14.97 W	14.84 W	14.84 W	ENERGY STAR Computers V8.0				
Sleep (S3)	- WOL Enabled	0.86 W	0.87 W	0.87 W	ENERGY STAR Computers V8.0				
Off (S5) - V	WOL Enabled	0.42 W	0.43 W	<b>0.43</b> W	ENERGY STAR Computers V8.0				
EPS No-loa		0.008 W	0.008 W	0.008 W					
(External power s wall outlet but disc	supply / charger plugged in the connected from the product.)	e							
PTEC *		W	W	W		$\boxtimes$			
	ergy Consumption					_			
ETEC * Annual Ene	ergy Consumption	<b>68.70</b> kWh/year	72.83kWh/year	<b>78.09</b> kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35 + P_{long\_ldle} \times 0.10 + P_{short ldle} \times 0.30)$	Ш			
		Poff: Off Mode(S5) - W	OL Enabled; Psleep: Sleep	Mode(S3) - WOL Enable	ed; Pidle: Idle State - WOL Enabled				
External Po	ower Supply Efficie	ency Level (International	l Efficiency Marking Pro	tocol) * : VI					
Display res	solution * :2.074 m	egapixels				$\Box$			
Default time	e to enter energy s	save mode: 10 minutes				Ħ			
P9.2*	Information abou	t the energy save funct	ion is provided with the	product.		Ħ			
P9.3	Energy efficiency	class (monitors only):	<u> </u>						
P10	Emissions								
	Noise emission	- Declared according t	o ISO 9296 (See NOTE	B9)					
P10.1	Mode	Mode description		Statistical upper limit A-weighted sound power level, L <sub>WA,c</sub> (B)					
	Idle	* Idle (Operating)  n * HDD:Operation CPU:Operation		* 2.7					
	Operation			* NA(No HDD) 4.0					
	Other mode	Declared A-weighted sour	ad pressure level (dB) $L_{p{ m Am}}$	17.8 (operator positi	tion desktop – idle)				
	Other mode		ad pressure level (dB) $L_{p{\rm Am}}$						
	Measured accord	ling 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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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

Model number *		82RD			Logo	Long		
Issue date *		2022-3-11				Leno	VO.	1
Product env	ironm	ental attributes	- Market requiremen	nts (continued)		Require	nent	met
Item						Yes	No	n.a.
Ele	ectroma	agnetic emission	S					
pro	ogram(s	s): MPŘ-II(3 pin A	C adapter only)	quency electromagnetic fields	of the following voluntary			
		ics for computing						
	•	, ,		O 9241-307 for visual display	•	$\boxtimes$		
P12.2* The	e physi	cal input device me	eets the requirements of	FISO 9995 and ISO 9241-410	•			
		g and documenta						
Pro Pro Pro	oduct pa oduct pa oduct pa	ackaging material ackaging material	type(s): Corrugated Fib type(s): paper(manual) type(s): PP weight (kg): type(s): PE weight (kg): type(s): EPE w	weight (kg): <b>0.096</b> : <b>0.016</b>	): <b>0.398</b>			
P13.2* Pro	oduct pl	lastic primary pack	aging is free from PVC.			$\boxtimes$		
P13.3* For	r produ nsumer	ct primary corrugate recovered fiber co	ated fiberboard packag intent: 100 %	ing, specify the contained pe	ercentage of minimum po	st-		
Ele		edia for user and p ☑, Paper ☑, O	roduct documentation (ther	tick box):				
Ùs	er and		em if paper documentat ation on paper media is					
Ele	emental	lorine-free chlorine-free d chlorine-free						
		programs						
P14.1 The	e produ	ict meets the requi	rements of the following	voluntary program(s):				
Ec Ec	o-label: o-label:		Criteria version: Criteria version: Criteria version:	Date: Date: Date:	Product category: Product category: Product category:			
		al information (Se						
				ay vary; description of the t				
the su inf Ac	e inform pplier's formation	nation contained s knowledge avail on. The informati Representative fo	in this document. All i lable at the time of con on provided here is ap or more information.	antees, assurances or warra nformation provided by sup npletion, and supplier shall proximate and provided for	plier in this document is have no obligation to up informational purposes	provided l date such	based	on
				omputers for the latest infor v/products/office_equipmen				

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 *	Legion 5 15ARH7H	Logo	
Model number *	82RD		Lonovo
Issue date *	2022-3-11		Lenovo.
Additional information			
•			
P7.1.1 Product environr	nental attributes		

d)	Year of manufacture:				2022
e)	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 Categorienable	ry and capability adjust	ments 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]			32	
ents ting	Additional internal storage	(Yes / No)	(Yes / No)	No (Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	(Yes / No)	(Yes / No)	No (Yes / No)	(Yes / No)
ability a lied du	Discrete Audio Card	(Yes / No)	(Yes / No)	No (Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	#: (Yes / No)	#: (Yes / No)	Yes #: 1 (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)			G7	
sults	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			42.00	
)	Idle state power demand (Watts);				14.84
)	Sleep mode power demand (Watts);				0.87
	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);		0.87
	Off mode power demand (Watts);				0.43
.)	Off mode with WOL enabled power dem	nand (Watts) (where en	abled);		0.43
)	Internal power supply efficiency at 10 %	, 20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
n)	External power supply efficiency (if appli	icable)*:			
	Average active efficiency: 230W:92.849	%, 92.62%, 92.47% <i>3</i> 0	00W: 93.33% 92.97%		
	*internal note: show values for all available external p	ower supplies			
)	Minimum number of loading cycles that	the batteries can withs	and (applies only to r	otebook computers):	300CYCLES
o-1)	Measurement methodology used to dete	ermine information mer	tioned in points (I) - in	nternal PSU efficiency	
p-2)	Measurement methodology used to dete	ermine information men		external PSU efficience	cy:

(p-3)	Measurement metho	dology used to determine information mentioned in p EN 50563:2011 measurement methodo				
(p-4)		dology used to determine information mentioned in r Point P9.1 in the Product IT Eco Declaration:	naximum, idle, sleep, off mode			
	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 sl	eep and/or off mode was selected or programmed:				
		EN 62623:2013 measurement methodo	ology			
(s)		required to reach the mode where the equipment au wer management, 30mins automatically reaches				
(t)	condition which does	te condition before the computer automatically re not exceed the applicable power demand requirement	ents for sleep mode (in minutes):	10min		
(u)		r a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		NA		
(v)		re the display sleep mode is set to activate after	<b>3</b> \	10min		
(w)	Information on the er	nergy-saving potential of power management function	nality:			
	User information	described in User Guide and Power Manager un programs	der Lenovo Vantage menu in all			
(x)	User information on I	now to enable the power management functionality:				
	User information	described in User Guide and Power Manager un programs	der Lenovo Vantage menu in all			
(z)		measurements: — test voltage in V and frequency in system, — information and documentation on the insting:  230V, 50GHz, Total Harmonic Distortion	strumentation, set-up and circuits			
Addition	al Notebook Batter	y 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 Bac	Bios Backup Battery					
Other:						
Additiona	I 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.

H 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 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.