



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
conforms to the statemen	nts given in this declaration.
Type of product *	Notebook
Commercial name *	ThinkPad E595
Model number *	20NF
Issue date *	2019/01/10
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 nu	mber *	20NF	Logo	Long		
Issue dat	e *	2019/01/10		Lend) _{TM}
Product	environ	mental attributes - Legal requirements		Require	ment	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	B1)	\boxtimes		
P1.2*		do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloro	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (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% polychol (PCT) in preparations (see legal reference).	lorinated			
P1.5*		do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 cart ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in th	e 🔀		
P1.6*	(see lega	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/weel	(
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail own.lenovo.com/social_responsibility/us/en/environment.html	contact):			
P2	Batterie	S				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with t Information on proper disposal is provided in user manual. (See legal reference)	he disposal			
P2.2*	Batteries reference	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	iium. (See lega	I 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	The prod	duct is CE-marked to show conformance with applicable legal requirements (see legal legal requirements) laration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/social_responsibility/us/en/ec_doc_notebooks/	jal reference).			
P3.2*	The prod	duct complies with the Eco design requirements for energy-related products, al reference).				
	Required	d information is; given in item P15 or added to this document, available at (add URL): www.lenovo.com/social_responsibility/us/en/datasheets_notebooks/				
P5		packaging				
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercury cent chromium by weight of these together.	/, cadmium an	ıd 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of elegal reference).	of the material(s) 🔀		
P5.3*	The prod (see lega	bluct packaging material is free from ozone depleting substances as specified in the Nal reference). In the spanning of the s	Montreal Protoc	ol 🔀		
P6		nt information				
P6.1*	Informati	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 *	20NF	Logo	Lanava
Issue date *	2019/01/10		LEI IOVO

Product	t environmental attributes - Market requirements (See General NOTE GN below)			
		Require	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			
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.	\boxtimes		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\boxtimes		
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).	\boxtimes		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes		
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):			
	Material type: PC+ABS Material type: PC+ABS+15%Talc Material type: Aluminum	n		
P7.12	Material type: PC+GF Insulation materials of external electrical cables are PVC free.			
P7.13	Insulation materials of external electrical cables are PVC free.			- - -
P7.13	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1%			-
P7.14	weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and			Ш
	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)			
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: FR(40)			
P7.17	<u>Alt. 1:</u> Chemical specifications of flame retardants in printed <u>circuit</u> boards > 25 g (without components):			
	TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: DOPO, CAS #: 35948-25-5	\bowtie		
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g			
	according ISO 1043-4: FR(40)	\boxtimes		
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in			
	concentrations above 0,1%:	\boxtimes		
	1. Chemical name: Phosphorus compounds , CAS #: confidential (See NOTE B4)			
	2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "			
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; confidential and Hazard statements: confidential		Ш	
	The source(s) for these classifications is/are found at (add URL(s)): , (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 2.5%.			
	Or h) The weight of recycled material is 16.6 a			
L	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 *	20NF	Logo	Lanava
Issue date *	2019/01/10		Lei IOVO"

Product environmental attributes - Market requirements (continued)	Requi	remer	nt met
Item	Yes	No	n.a.

	Material and sul	bstance requirements	(continued)			
P7.21*	Biobased plastic	material content is used	d in the product (See No	OTE B7):		
P7.22*		e free from mercury, i.e. d specify: Number of la	less than 0,1 mg/lamp. mps: and maxim	um mercury content po	er lamp: mg	
P8	Batteries				•	
P8.1*	Battery chemical	composition: Lithium I	lon			
P9		ption (See NOTE B8)				
P9.1			ls or energy consumption			
Energy mo	de *	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-	max)	65 W	65 W	65 W	Full load	
Category -	<u>2</u>					
Short Idle Enabled	State - WOL	6.78 W	6.87 W	6.95 W	Use for ENERGY STAR V7.0 registration (P _{idle})	
Long Idle Enabled	State - WOL	4.21 W	4.28 W	4.3 W	Use for ENERGY STAR V7.0 registration (P _{idle})	
Sleep (S3)	- WOL Enabled	0.87 W	0.89 W	0.9 W	Use for ENERGY STAR V7.0 registration (P _{sleep})	
Off (S5) - I	WOL Enabled	0.38 W	0.39 W	0.4 W	Use for ENERGY STAR V7.0 registration (P _{off})	
Category -	<u>1</u>					
Short Idle Enabled	State - WOL	6.21 W	6.28 W	6.31 W		
Long Idle Enabled	State - WOL	4.21 W	4.28 W	4.4 W		
Sleep (S3)	- WOL Enabled	0.87 W	0.89 W	0.9 W		
	WOL Enabled	0.38 W	0.39 W	0.4 W		
EPS No-loa	ad	0.06 W	0.06 W	0.06 W		
PTEC		W	W	W		\boxtimes
ETEC *		category2 20.95	category2 21.28	category2 21.52	$E_{TEC} = (8760/1000) \times (P_{\text{off}} \times 0.25)$	
Annual En	ergy Consumption	category1 19.86	category1 19.99	category1 20.17	+ P _{sleep} x 0.35 + P _{long_Idle} x 0.10+	_
		kWh/year	kWh/year	kWh/year	P _{short_Idle} x 0.30)	
External D	aurar Cumply Efficie		Il Efficiency Marking Pro		ed; P _{idle} : Idle State - WOL Enabled	$\overline{}$
			ii Ellicielicy Marking Pro	olocoi) . VI		
	solution * : 2.07 me					<u></u>
		save mode: 30 minutes				<u>Ц</u>
P9.2*	Information abou	t the energy save funct	ion is provided with the	product.		
P10	Emissions					
D40.4			o ISO 9296 (See NOTE		'(A sight day a day a side of the	(D)
P10.1		Mode description			it A-weighted sound power level, $L_{WA,c}$ ((R)
	Idle	* HDD Idle		* 2.5		<u> </u>
	Operation	* HDD * CPU		* 3.0 * 3.8		
	Other mode	Declared A-weighted sour	ad pressure level (dB) $L_{p m Am}$	15(operator positio	n desktop – idle)	-
	Other mode	Declared A-weighted sour	ad pressure level (dB) $L_{p m Am}$	22 (operator position 30 (operator position 22)	on desktop – operating HDD) n desktop – operating CPU)	
	Measured accord	ling to: ISO 7779	ECMA-74	FCMA-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

wodei nun	nber "	20NF				Logo	Long	1/0	
Issue date	*	2019/01/10					Leno	VO.	
Product 6	environn	nental attributes	- Market requirements (co	ntinued)			Require	ment	met
Item			•	•			Yes	No	n.a.
	Electron	nagnetic emission	s						
P10.4			requirement for low frequency en adapter only)/MPR-II (3pin ad		of the follo	owing voluntary			
P12	Ergonor	mics for computing	g products						
P12.1*	The disp	lay meets the ergon	omic requirements of ISO 9241-	-307 for visual display	y technolog	jies.			
P12.2*	The phys	sical input device me	eets the requirements of ISO 99	95 and ISO 9241-410).		\boxtimes		
P13		ng and documenta							
P13.1*	Product Product	packaging material packaging material	type(s): EPE weight (kg						
P13.2*	Product	plastic primary pack	aging is free from PVC.				\boxtimes		
P13.3*	consume	er recovered fiber co	ated fiberboard packaging, spe ontent: 70% (only for Japan) %		ercentage	of minimum po	st-		
P13.4*			product documentation (tick box) Other	:					
P13.5	Ùser and		em if paper documentation used ation on paper media is chlorine						
	,	hlorine-free al chlorine-free					\boxtimes		
		ed chlorine-free							
P14	Volunta	ry programs							
P14.1			rements of the following volunta	ry program(s):					
	Eco-labe Eco-labe		Criteria version: 7.0 Criteria version: IEEE 1680 Criteria version: Ver.13 Criteria version: NB5.0	Date: 2018/10/26 Date: 2018/10/26 Date: 2018/10/26		ategory: 1 ategory: Notebo ategory:	ook		
P15		nal information (Se	,						
P9			ecific configuration may vary						
	informati knowledge provided informati	ion contained in this ge available at the ti I here is approximati ion.	epresentations, guarantees, assi document. All information provio ime of completion, and supplier e and provided for informational	ded by supplier in this shall have no obligati purposes only. See a	s documen ion to upda a Lenovo A	t is provided bas te such informat	sed on supp ion. The inf	olier's formati	on
P9	See Ene	rgy Star Qualified N w.energystar.gov/in	otebooks & Tablet Computers for idex.cfm?fuseaction=find_a_pro	or the latest information duct.showProductGro	on: oup&pgw_c	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	ThinkPad E595	Logo
Model Number	20NF	Lopovo
Issue Date	2019/01/10	Leliovo.
Additional information		

(d)	Year of manufacture:				2017
(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	ry and capability adjust	ments applied when a	all 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]	32	-		
ents	Additional internal storage	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)
ability a lied du	Discrete Audio Card	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)
capa	Discrete graphics Card(s) [number / #]	No #: 0 (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
•	Category of discrete graphics Card(s)				
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)	14.19			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
g)	Idle state power demand (Watts);	1	-	1	A:4.3
h)	Sleep mode power demand (Watts);				A:0.9
i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		A:0.9
j)	Off mode power demand (Watts);				A:0.4
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		A:0.4
(1)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	age		
m)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: 45W: 87,98% 90,80%,92,60%; 230W: 91,85%,91,49%		V: 89,41%,88,62%,88,	96%; 135W: 89,88%,9	91,35%; 170W:
· .	*internal note: show values for all available external pr				
(o)	Minimum number of loading cycles that t	the batteries can withst	tand (applies only to n	otebook computers):	500 cycles

(p-2)	Measurement metho	dology used to determine information mentioned in p EN 50563:2011 measurement methodo			
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: EN 61960 measurement methodology				
(p-4)					
	power as defined in Point P9.1 in the Product IT Eco Declaration:				
		EN 62623:2013 measurement methodo	ology		
(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:				
()	refer to power management, sleep mode: ACPI system level G1/S3 (suspend to RAM) state; off mode:				
ACPI system level G2/S5 ('soft off') state					
(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				
(1)	condition which does not exceed the applicable power demand requirements for sleep mode (in minutes):			30	
(u)				NA.	
(11)	mode that has a lower power demand requirement than sleep mode (in minutes): (v) Length of time before the display sleep mode is set to activate after user inactivity (in minutes):			10	
• •	(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)	(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 %					
Additio	nal Notebook Batter	v Information:			
7 10.0.10.0		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)			
	" " D "	· · · · · · · · · · · · · · · · · · ·			
Internal	/built-in Battery				
External/detachable Battery					
Bios Backup Battery					
Other:					
Addition	nal information			'	
Ļ					

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. 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. Lietotāji 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. II-batterija/batteriji f'dan iI-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 ușor 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.

The battery[ies] in this product cannot be easily replaced by users themselves.