

Ecma/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Computers and computer monitors

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 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com	Lenovo
Internet site *	www.lenovo.com	
Additional information		

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 *	Tablet						
Commercial name *	ThinkPad 10						
Model number *	20E3, 20E4						
Issue date *	November 18, 2016						
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 *	20E3, 20E4	Logo				
Issue date *		November 18, 2016		Len	Lenovo		
	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	E B1)				
P1.2*	Comme	s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.		\boxtimes			
P1.3*	hydrobro trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), pmofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no m ration values.		1-			
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych /l (PCT) in preparations (see legal reference).		\square			
P1.5*	chain co	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).					
P1.6*	(see leg	th 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/\	veek 🔀			
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail ww.lenovo.com/social_responsibility/us/en/materials.html	contact):	\boxtimes			
P2	Batterie	S					
P2.1*	If the pro symbol.	oduct 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)	the disposa	I 🖂			
P2.2*		s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadm	nium. (See	legal 🔀			
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)		\boxtimes			
P3	Conforr	nity verification & Eco design (ErP)					
P3.1*	The proo The Dec http://ww	e). 🔀					
P3.2*	The pro	duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes			
	Require	information is available : ww.lenovo.com/social_responsibility/us/en/datasheets_notebooks/		\square			
P5		packaging					
P5.1*	Packagi	ng and packaging components do not contain more than 0,01% lead, mercury ant chromium by weight of these together.	y, cadmium	n and 🔀			
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature one legal reference).	of the mate	rial(s) 🔀			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.						
P6		nt information					
P6.1*		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 *		20E3, 20E4	Logo			
Issue dat	te *	November 18, 2016		Len	ovo	TM
Product	environ	mental attributes - Market requirements (See General NOTE GN	below)			
		onmental conscious design		Require		
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7	Design Disasse	mbly, recycling				
P7.1*		t have to be treated separately are easily separable				
P7.2*	Plastic m	aterials in covers/housing have no surface coating.				
P7.3*		arts > 100 g consist of one material or of easily separable materials.		— <u> </u>	Ē	\boxtimes
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			Ē	
P7.5	· ·	arts are free from metal inlays or have inlays that can be removed with commonly a	available tools.		Ħ	Ħ
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).			H	
	Product					
P7.7*		ig can be done e.g. with processor, memory, cards or drives		\square		
P7.8*	Upgradir	g can be done using commonly available tools				
P7.9	Spare pa	arts are available after end of production for: 5 years				
P7.10	Service i	s available after end of production for: 5 years				
	Material	and substance requirements				
P7.11*	Product	cover/housing material type (e.g. plastics, metal, aluminum):				
			al type: <mark>Magnes</mark>	ium		
P7.12		n materials of external electrical cables are PVC free.				
P7.13		n materials of internal electrical cables are PVC free.				
P7.14	weight (plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame	e retardants, an	d 🗖		
		chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) g more than 25% post-consumer recycled content.	chiorine in part	S		
P7.15	Printed	circuit boards, PCBs (without components) are low halogen: all PCBs >: as defined in IEC 61249-2-21. (See 1NOTE B2)	25 g 🔀 are Iov	N 🖂		
P7.16		tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		\square		
	Marking:	FR(40)				
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c			_	
		PA (additive), TBBPA (reactive) (See NOTE B3), Other: <i>DOPO(9,10-dihydro</i>	-9-oxa-10-	\bowtie		
		aphenanthrene-10-oxide), CAS #: 35948-25-5		_	_	
	accordin	nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4:	, -			
P7.18		ame retarded plastic parts > 25 g contain the following flame retardant substance	es/preparations i	n 🗖		
		ations above 0,1%: ical name: , CAS #: (See NOTE B4)				
		ical name: , CAS #: "				
	3. Chem	ical name: , CAS #: "				
	<u>Alt. 2: </u> Cł FR(40)	nemical specifications of flame retardants in plastic parts > 25 g according ISO 104	3-4:	\square		
P7.19		: parts > 25 g, flame retardant substances/preparations above 0,1% are used which I the following Risk phrases; <i>R53</i> and Hazard statements: <i>H41</i> 2	have been			
	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5)					
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):		\square		
	a) Of t a pe	t least one of the two alternatives below shall be answered; otal plastic parts' weight > 25 g, the postconsumer recycled plastic material conten ercentage of total plastic by weight) is %.	t (calculated as			
	or b) The	weight of recycled material is 1 g.				
1	<i></i>					

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 *	20E3, 20	E4			Logo	
Issue date *	Novemb	er 18, 2016				Lenovo
Product environ	nental at	tributes - Market r	equirements (cont	inued)		Requirement met
Item						Yes No n.a.
		tance requirements				
P7.21* Biobase	d plastic m	aterial content is used	I in the product (See N	IOTE B7):		
			s below shall be answ			
				material content (calcu	ulated as a perce	ntage
or	otal plastic	by weight) is %).			
	e weight of	the biobased plastic r	naterial is g.			
			less than 0,1 mg/lamp			
		specify: Number of lar	nps: and maxin	num mercury content pe	er lamp: mg	g
P8 Batterie P8.1* Battery	-	omposition: Lithium I	00			
,		tion (See NOTE B8)				
			s or energy consumpt	ions are reported:		
Energy mode *		Power level at	Power level at	Power level at	Reference/Star	ndard for energy
D ((D)		100 V AC	115 V AC	230 V AC	modes and tes	t method *
Peak (On-max)		36 W	36 W	36 W	Full load	
Category I2						
Short Idle State		4.38516 W	4.30836 W	4.68996 W	P _{SHORT_IDLE} in EN	ERGY STAR
		4.38516 W			PLONG_IDLE IN ENE	
Long Idle State			4.30836 W	4.68996 W		
Sleep (S3)		0.4182 W	0.321336 W	0.3897 W	P _{SLEEP} in ENERG	Y STAR
Off (S5)		0.11420 W	0.11564 W	0.13847 W	P _{OFF} in ENERGY	STAR
EPS No-load		W	0.0588 W	0.0936 W		
(External power supply / charger wall outlet but disconnected from	plugged in the					
PTEC *		W	W	W		
Typical Energy Cons	sumption	10.00 1114/1 /	10.00110/// /	(7.00)		
ETEC * Annual Energy Cons	umption	16.90 kWh/year	16.33 kWh/year	17.93 kWh/year		$\begin{array}{c} \textbf{000) x (P_{OFF} \times T_{OFF} \\ \textbf{P} + P_{LONG_{IDLE}} \end{array} \\ \end{array}$
Annual Energy Conc	amption				$T_{LONG_IDLE} + P_{SI}$	
					T _{SHORT_IDLE})	
			Efficiency Marking Pr	rotocol) * : V		
Display resolution *						
		ve mode: 10 minutes				
			on is provided with the	e product.		
P9.3 Energy	efficiency c	lass (monitors only):				
P10 Emissio						
P10.1 Mode		Declared according to lode description	ISO 9296 (See NOT		it A woighted com	nd power level, <i>L_{WA.c}</i> (B)
Idle		Idle		* 2.6	n A-weighten Sou	
Operatio		Operating		* 2.6		
		- Providenting		Declared A-weighte	d sound pressure	
				(operator position d		
Idle	*	Idle		* 14	• /	
Operatio	n *	Operating		* 14		Π
Measure	ed accordir	ng to: 🔀 ISO 7779 📐	ECMA-74			
		Other	(only if not covered b	v FCMA-74)		

The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, NOTE B7 connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>

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

Model nu	mber *	20E3, 20E4				Logo			
lssue dat	e *	November 18, 2016				Lenc			
Product	environm	ental attributes	- Market requirements (co	ontinued)			Require		me
ltem							Yes	No	n.a
	Electrom	agnetic emissions	•						
P10.4		display meets the s): <i>MPR-II(3 pin AC</i>	requirement for low frequency	electromagnetic fiel	ds of the foll	owing volunta	iry 🔀		
P12	Ergonom	ics for computing	products						
P12.1*	The displa	ay meets the ergon	omic requirements of ISO 9241	-307 for visual disp	lay technolog	gies.	\boxtimes		
P12.2*	The physi	cal input device me	ets the requirements of ISO 99	995 and ISO 9241-4	10.	-		Ē	
P13	Packagin	g and documenta	tion						
P13.1*		Packaging:							
	Product p	ackaging material t	ype(s): Corrugated Cardboar	d	weight (kg	j): 0.320			
			ype(s): 100% Recycled Molde		weight (kg): 0.140			
			ype(s): Others (Polyethylene	bags)	weight (kg	j): 0.004			
	Retail Pac								
			ype(s): Corrugated Cardboar		weight (kg				
			ype(s): 100% Recycled Polye	thylene (RLDPE)	weight (kg				
			ype(s): Polystyrene		weight (kg				
		0 0	ype(s): Others (Non-woven b	ag)	weight (kg	j): 0.007			
P13.2*	•		aging is free from PVC.				\square		
P13.3*	consume	recovered fiber co		•	percentage	of minimum	post-		
P13.4*			roduct documentation (tick box	:):					
	Electro	onic, 🛛 Paper, 🔲 🤇	Other						
P13.5	(Please o	nly complete this ite	em if paper documentation use	d)					
			tion on paper media is chlorine	e-free:			\square		
	lf Yes, ple	ease specify:							
	Totally ch	lorine-free							
	-	l chlorine-free							
		d chlorine-free							
P14		/ programs							
P14.1			ements of the following volunta	ary program(s):					
		074 D 0		5.4	.				
	ENERGY		Criteria version: 6.1	Date:		category: 12			
	Eco-label		Criteria version: Tablet 3.0	Date:	Product of	• •			
	Eco-label		Criteria version: Gold Criteria version: Gold	Date: Date:	Product of Product of	0,			
P15		al information (See		Dale.	Product of	Lategory:			_
P15 P9			mputer products; description	of the tested are	duat aanfi-	uration:			
				i oi the tested proc	uuci configi				
P7.12	Low halogen power cord can be ordered on request.								

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 10	Logo
Model Number	20E3, 20E4	
Issue Date	November 18, 2016	Lenovo
Additional information		

P7.1.1	Product environmental attributes											
(d)	year of manufacture:				2016							
(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 enabled											
	Category A (according to ErP Lot 3) Category B (according to ErP Lot 3) Category C (according to ErP Lot 3) Category C (according to ErP Lot 3) Category D (according to ErP Lot 3)											
	Memory over base [GB]	0										
lents sting	Additional internal storage	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)	(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)	11.618										
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled											
(g)	Idle state power demand (Watts);		•		3.960							
(h)	Sleep mode power demand (Watts);				0.382							
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);									
(j)	Off mode power demand (Watts);				0.171							
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);									
(I)	Internal power supply efficiency at 10 %	, 20 %, 50 % and 100 °	% of rated output powe	er (if applicable):								
	10% 20% 50%	100% Avera	ige									
(m)	external power supply efficiency (if appli	cable)*:										
	Average active efficiency: 36W: 87,93%	6,87,07%										
(0)	Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 1000											
(p-1)	Measurement methodology used to dete	ermine information mer	tioned in points (I) – ir	nternal PSU efficiency								
	Not applicable											

(p-2)	Measurement metho	dology used to determine information mentioned in p	points (m) – external PSU efficiency:						
	EPA "Test Method	for Calculating the Energy Efficiency of Single-V Power Supplies" dated August 11, 2							
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: IEC 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:								
		IEC 62623 / IEC EN50564:2011 measurement r							
(q)	Sequence of steps for achieving a stable condition with respect to power demand:								
		IEC 62623 / IEC EN50564:2011 measurement r	nethodology						
(r)	Description of how sl	eep and/or off mode was selected or programmed:							
		y selecting sleep and/or off mode thru Windows (
(s)	Sequence of events off mode:	required to reach the mode where the equipment au	tomatically changes to sleep and/or						
		Automatically changes to sleep							
(t)		te condition before the computer automatically re		10 minutes					
(u)		not exceed the applicable power demand requirement a period of user inactivity in which the compute							
		ver power demand requirement than sleep mode (in		10					
(v) (w)		re the display sleep mode is set to activate after nergy-saving potential of power management function		10 minutes					
		n described in User Guide and Power Manager u							
(x)	User information on I	programs now to enable the power management functionality:							
()		n described in User Guide and Power Manager u	nder ThinkVantage menu in all						
(z)	Test parameters for r	programs measurements: — test voltage in V and frequency in	Hz — total harmonic distortion of						
(-)		system, - information and documentation on the inst							
		230V, 50Hz, Total Harmonic Distortion	<2 %						
Addition	Notebook Battery								
		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. $^{\mbox{\tiny 1)}}$							
Internal/b	uilt-in Battery	\boxtimes							
External/o	detachable Battery								
Bios Back	kup Battery								
Other:									
Additional	l information								
1) The better/lies) in this product connet he	easily replaced by users themselves.							
Акумулаторна	ата[ите] батерия[и] в този і	продукт не може да се замени[ят] лесно от самите потребите	ели.						
Výměnu bateri	e/baterií v tomto výrobku by	ser sustituidas fácilmente por los propios usuarios. / neměli provádět sami uživatelé.							
Der Akku/die A	Akkus dieses Produkts kann	atteriet/batterierne i dette produkt. /können nicht ohne weiteres vom Benutzer selbst ausgetauscht	werden.						
	aa selle toote akut/akusid is ς] στο προϊόν αυτό δεν μπο	e hõlpsasti asendada. ρούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες							
La/les batterie		uit ne peuvent être facilement remplacée(s) par les utilisateurs e	eux-mêmes.						
La batteria/le b		on può/possono essere facilmente sostituita/e dall'utente.							
Šio gaminio ba	aterijos [baterijų] pats vartot	ojas negali lengvai pakeisti.							
Il-batterija/batt	eriji f'dan il-prodott ma tista:	felhasználó nem tudja egyedül egyszerűen kicserélni. /jistgħux tiġi/jiġu sostitwita/i mill-utenti stess. vit erctattes av brukarne selv.							

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. Užytkownik nie može sam v latwy 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] el[văt] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.