

### Product environmental attributes – THE ECO DECLARATION

The declaration may be published only when all rows and/or fields marked with an \* are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P14.

Brand *	Think	Logo				
Company name *	Lenovo					
Contact information *	Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 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/social_responsibility/us/en/datasheets_notebooks.html					

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 *	ThinkPad 13					
Model number *	20GL,20GM					
Issue date *						
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.

Quality	Control	Requireme	nt met
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	$\boxtimes$	
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality contro such as organized by IT-Företagen (see www.itecodeclaration.org).	ol 🔀	

Model number *	20GL,20GM		
Issue date *	2016-03-28	Logo	Lenovo

Product	environmental attributes - Legal requirements	Requirement me		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)	, 🛛		
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	$\boxtimes$		
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	$\square$		
1 1.0	hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1- trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum			
P1.4*	concentration values. Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated	$\boxtimes$		
P1.5*	terphenyl (PCT) in preparations (see legal reference). Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the			
	chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).		<u> </u>	
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1) (			$\square$
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as			$\boxtimes$
	pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5	$\square$		
1 1.0	microgram/cm <sup>2</sup> /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.			
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):	$\boxtimes$		
	http://www.lenovo.com/social_responsibility/us/en/materials.html			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or	$\square$		
P2.3*	accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference) Batteries and accumulators are easily removable by either users or service providers (as dependent on the	$\boxtimes$		
1 2.0	design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)			
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	$\square$		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference)		Ħ	
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies		H	H
	with legally required standards for radio and telecommunication devices (see legal reference).			
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	$\square$		
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			$\boxtimes$
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).			$\boxtimes$
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	H 🔀		
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	$\square$		
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	I 🔀		

Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

Model number *		20GL,20GM			
Issue dat	te *	2016-03-28 Logo	Lend	OVO.	
Due du et		nantal attributes Manlat maningmants Frazingmantal severing design F			
Item		mental attributes - Market requirements - Environmental conscious design F tory to fill in. Additional information regarding each item may be found under P14.	Require Yes	No	n.a.
P6		nt information	165	NU	11.a.
P6.1*		on for recyclers/treatment facilities is available (see legal reference).			
P7	Design Disasse	mbly, recycling			
P7.1*		t have to be treated separately are easily separable	$\square$		
P7.2*	Plastic m	aterials in covers/housing have no surface coating.	Ē	$\square$	
P7.3*		arts >100g consist of one material or of easily separable materials.			
P7.4*		arts >25g have material codes according to ISO 11469 referring ISO 1043.		Ħ	
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly available tools.		H	
P7.6*		e easily separable. (This requirement does not apply to safety/regulatory labels).		$\exists$	
17.0	Product				
P7.7*		g can be done e.g. with processor, memory, cards or drives			
P7.8*		g can be done using commonly available tools		$\dashv$	
P7.9.					
P7.10	<u> </u>	rts are available after end of production for: 5 years	_		
17.10		s available after end of production for: 5 years and substance requirements			
P7.11*		cover/housing material type:			
		type: PA+ABS+TPU Material type: PC+ABS Material type: PA+55%GF Material type	PC		
P7.12	Electrica	cable insulation materials of power cables are PVC free.		$\boxtimes$	
P7.13		cable insulation materials of signal cables are PVC free		Ē	
P7.14		housing plastic parts >25g are free from chlorine and bromine.		Ħ	
P7.15		d circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See		Ħ	H
	Note B2)				
P7.16	Flame re Marking:	tarded plastic parts >25g in covers / housings are marked according ISO 1043-4:	$\boxtimes$		
P7.17	Alt. 1				
		I specifications of flame retardants in printed circuit boards >25g (without components): additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
		I specifications of flame retardants in printed circuit boards (without components) >25g according			
	ISO 1043	3-4:			
P7.18	concentra	etarded plastic parts >25g contain the following flame retardant substances/preparations in ations above 0.1%:			
		ent: No legal limits exist, this is a market requirement.			
		cal name: , CAS #: cal name: , CAS #:			
		cal name: , CAS #:			
	Alt. 2				
	Chemica FR(40)	I specifications of flame retardants in plastic parts >25g according ISO 1043-4:	$\square$		
P7.19		arts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, 5, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)	$\square$		
P7.20		lastic parts' weight >25g, recycled material content is 8.8%			
P7.21		lastic parts' weight >25g, biobased material content is <b>0%</b> .			
P7.22		rces are free from mercury y is used specify: Number of lamps: and max. mercury content per lamp: mg	$\boxtimes$		
P8	Batteries				
P8.1*		hemical composition: Lithium Ion/Lithium Manganese Dioxide			
P8.2		meet the requirements of the following voluntary program/s: US Call2Recycle, and add EPBA,			
	JBRC.	most are required to be the following relation, programme, or contractory original and Er DA,			

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

Model number *	20GL,2	0GM							
Issue date *	2016-0						Logo	Lenovo	
Product environ	mental attrib	utes - Market	requirements (o	continued)				Requirement	t met
Item			•					Yes No	
	consumption							<u>,</u>	
	product the foll		els or energy cons	· · · · · · · · · · · · · · · · · · ·					
Energy mode *		100 V AC	Power level at 115 V AC	230 V A		method *	idard for	energy modes and test	
Peak (On-max)		W	W	W		Full load			
Category I1									
Short Idle State - W		9.384(50Hz); 9.072(60Hz) W	9.324 W	9.384W				<b>1 registration (P<sub>idle</sub>)</b>	
Long Idle State - W	OL Enabled	6.936(50Hz); 6.828(60Hz) W	6.96W	7.068W	Us	se for ENERGY S	STAR V6.	<b>1 registration (P<sub>idle</sub>)</b>	
Sleep (S3) - WOL E	Enabled	0.804(50Hz); 0.816(60Hz) W	0.804 W	0.804W	Us	se for ENERGY S	STAR V6.	<b>1 registration</b> (P <sub>sleep</sub> )	
Off (S5) - WOL Ena	bled	0.492(50Hz); 0.504(60Hz) W	0.492W	<b>0.492</b> W	Us	se for ENERGY S	STAR V6.	<b>1 registration</b> (P <sub>off</sub> )	
Category I2		1 **	ı		·				1
Short Idle State - W	VOL Enabled	W	W	W	Us	se for ENERGY S	STAR V6.	<b>1 registration (P</b> idle)	
Long Idle State - W	OL Enabled	W	W	W	Us	se for ENERGY	STAR V6.	1 registration (P <sub>idle</sub> )	
Sleep (S3) - WOL E	nabled	W	W	W	Us	se for ENERGY	STAR V6.	1 registration (P <sub>sleep</sub> )	
Off (S5) - WOL Ena	bled	W	W	W	Us	se for ENERGY	STAR V6.	1 registration (P <sub>off</sub> )	
EPS No-load		W	W	W					
(External power sup plugged in the wall of disconnected from the	outlet but								
PTEC * Typical Energy Cons	sumption	W	W	W					$\boxtimes$
TEC * Typical Energy Cons	sumption	kWh/week	kWh/week	kWh/week					
ETEC * Annual Energy Cons	sumption	34.28(50Hz); 33.43(60Hz) kWh/year	<b>/1:34.14</b> kWh/year	<b>l1:34.40</b> kWh/year	ear $P_{iong_{ldle}} \times 0.10 + P_{short_{ldle}} \times 0.30)$				
		Poff: Off Mode(S	5) - WOL Enabled; I	P <sub>sleep</sub> : Sleep Mo	ode(	S3) - WOL Enabled	l; P <sub>idle</sub> : Idl	le State - WOL Enabled	
Display resolution*	: 2.07 Megapix	kels							
Print Speed *	: Image	s per minute							$\boxtimes$
Default time to enter	r energy save r	node: 30minutes							
P9.2* Informat	tion about the e	energy save func	tion is provided wit	h the product	t.			$\boxtimes$	
ENERG	Y STAR® vers	energy requirem ion: Version 6.1	ents of the followin Tier: Pro	ng voluntary p duct category		ıram/s:			
Others s P10 Emissio	· ·								
Noise e	mission – Dec	clared according	to ISO 9296						
P10.1 Mode	Mode	e description		Declar A-weigh				A-weighted	
				sound p		r		level $L_{pAm}$ (dB)	
				level $L_{W}$	Ad (I			Bystander positions	
							sido	(only if product is not	
1-11-	Idle * Idle mode					or Desk		operator attended)	
Idle	" Idle	e moue		* 2.7		22		18.7	
Operatio		erating(HDD)		* NA			^	VA	
Other m	ode Op	erating(CPU)		3.5		32		26.5	
Measure	ed according to		ECMA-74						
P10.2 The prod	duct meets the	Other				with L <sub>pAm</sub> measur	rement dis	stance m)	
P10.2 The product meets the acoustic noise requirements of the following voluntary program/s:									

Issue dat	2016-03-28			Logo	Lenov	VO.	
				•			
Product	environmental attributes - Mar	ket requirements (continued)	1		Requiren		
Item					Yes	No n	
	Chemical emissions from printin	ng products					
P10.3*	Test performed according to ECMA	· / /	, other specify:				
P10.4	Typical emission rate (print phase)	is (mg/h):					
	Dust Ozone	Styrene Benzene	TVOC				
P10.5	Chemical emission requirements of Dust Ozone		are met for :	туос			
	Electromagnetic emissions						
P10.6	Computer display meets the require program/s:	ement for low frequency electromage	gnetic fields of the fo	llowing voluntary			
P11	Consumable materials for printing	na products					
P11.1*	A Safety Data Sheet (SDS) is available		even if not legally rec	uired (see P4.3).			
P11.2*				,			
	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.						
P11.3*	2-sided (duplex) printing/copying is						
P12	Ergonomics for computing produ						
P12.1*	The display meets the ergonomic re	•		ogies.			
P12.2*	The physical input device meets the	e requirements of ISO 9995 and IS	O 9241-410.				
P13	Packaging and documentation						
P13.1*	Product packaging material type(s) Product packaging material type(s) Product packaging material type(s)	): <b>100% Recycled Molded Pulp</b> ): <b>Others (Plastic Bag)</b> weight (k	weight (kg): 0.443 weight (kg): 0.161 kg): 0.029				
P13.2*	Product plastic packaging is free from	rom PVC.			$\boxtimes$		
P13.3*	Specify media for user and product	t documentation (tick box):					
	Electronic 🔀, Paper 🔀, Other 🗌						
P13.4*	For paper user and product docum fiber: 0%	entation, please specify contained	percentage of post-c	consumer recycle	t	Ε	
P14	Additional information (See Note						
	NOTE: Supplier makes no represent information contained in this docum knowledge available at the time of oprovided here is approximate and p information.	nent. All information provided by su completion, and supplier shall have provided for informational purposes	pplier in this docume no obligation to upo only. See a Lenovo	ent is provided ba date such informa Account Represe	sed on suppl tion. The info	lier's ormation	
P9	See Energy Star Qualified Noteb http://www.energystar.gov/index						

Note B4: 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 B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2,3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

# 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 13	Logo
Model Number	20GL,20GM	
Issue Date	2016-03-28	Lenovo
Additional information		

P7.1.1	Product environmental attributes	
(d)	year of manufacture:	2016
(e)	<b>E TEC value</b> (kWh) per ErP Lot 3 Category and capability adjustments applied when <b>all discrete graphics can</b> <b>disabled</b> and if the system is tested with switchable graphics mode with UMA driving the display:	ds (dGfx) are
	Category (according to ErP Lot 3): A Etec: 19.71	
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics car enabled:	ds (dGfx) are
	Category (according to ErP Lot 3): A Etec: NA	
(g)	idle state power demand (Watts);	5.9
(h)	sleep mode power demand (Watts);	
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	1.86
(j)	off mode power demand (Watts);	
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.45
(I)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):	
()	10% 20% 50% 100% Average	
(m)	external power supply efficiency (if applicable):	
	Average: 45W: 89.5%(Delta);89.23%(Chicony);89.61%(Liteon)	
(0)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):	1year 750cycle
(p-1)	the measurement methodology used to determine information mentioned in points (I) - internal PSU efficiency:	
	NA	
(p-2)	the measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:	
	EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC-DC and AC-AC Power Supplies" dated August 11, 2004	
(p-3)	the measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries:	
	IEC 61960 measurement methodology	
(p-4)	the 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:	

		li	EC 62623 / IEC	C EN	I50564:2011 measurement methodolog	y .				
(q)	sequenc	e of steps for ac	nieving a stable	e co	ndition with respect to power demand::					
		I.	EC 62623 / IEC	C EN	I50564:2011 measurement methodolog	<i>y</i>				
(r)	descripti	on of how sleep	and/or off mod	e wa	as selected or programmed:					
			Begin mer	nu -:	> Power -> Select sleep or off mode					
	<ul> <li>sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:</li> </ul>									
			Automatic	cally	/ changes to sleep after 30 minutes					
	the duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): 30									
					nactivity in which the computer automa and requirement than sleep mode (in min					
(v)	the leng	th of time befor	e the display s	slee	p mode is set to activate after user inac	tivity (in minutes):	10			
(w)	informati	on on the energy	/-saving potent	tial c	of power management functionality:					
	Use	r information de	escribed in Us	ser G	Guide and Power Manager under Think programs	Vantage menu in all	,			
(x)	user info	rmation on how	to enable the p	owe	er management functionality:					
	Use	r information de	escribed in Us	ser G	Guide and Power Manager under Think programs	Vantage menu in all				
	electricity for electricity test volta total harr	y supply system, ical testing: age in V and freq monic distortion	— information uency in Hz 23 of the electricity	n and 30V// y suj	voltage in V and frequency in Hz, — total d documentation on the instrumentation, s /50Hz pply system≤2% umentation, set-up and circuits used for e	et-up and circuits use				
	Instr.	Instrument	Instrument		Range Used					
	Code	I.D.	Туре		Or ***	Make and Model **				
	1	980800014	CHROMA		100-300VAC 50-60Hz 400Hz, 5A, 500 ,	61502				
	2	990800321	YOKOGAW	/A	600V, 10A, 5KW	WT 210				
	3	990105548	ISUZU		20-28 degree C 30-80%	TH-27R				
	4	710Q03R	CASIO		Full Range	HS-3V				
	5	990105627	TECPEL		0~20( m/sec)	AVM-714				
	otebook	Battery Informa	1	Thi	a nataback computer is appreted by batt	mulica that connat ha	-			
Yes (Battery r replaceable	not use )	No (Battery replaceable)	user n/a	by a Th	s notebook computer is operated by batte a non-professional user. e battery[ies] in this product c emselves					
		<b> </b>								

#### Additional information