

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 *	lenovo	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 *	Lenovo G50-80				
Model number *	80E5;80L0				
Issue date *	2015-01-13				
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 control such as organized by IT-Företagen (see www.itecodeclaration.org).	ol 🔀	

Model number *	80E5; 80L0		
Issue date *	2015-01-13	Logo	lenovo.

Product	duct environmental attributes - Legal requirements			met
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.			
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	\boxtimes	\Box	
	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*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	\boxtimes		
P1.5*	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).	\boxtimes		
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			
P1.8*	aromatic amines. (See legal reference and Note B1) Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as	$\overline{}$	$\overline{}$	\square
1 1.0	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		$\overline{}$	$\overline{}$
	microgram/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.		Ш	
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):	X	\Box	\Box
	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 accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes		
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the 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).			\boxtimes
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	\boxtimes		
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	\boxtimes		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\boxtimes	\Box	
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).			\boxtimes
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			\square
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).			
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.			
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	\boxtimes		
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.			

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

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		Require	ment	met		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.		
P6	Treatment information					
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes				
P7	Design Disassembly, recycling					
P7.1*	Parts that have to be treated separately are easily separable		$\overline{\Box}$			
P7.2*	Plastic materials in covers/housing have no surface coating.			+		
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	\square	$\overline{\Box}$	∺		
P7.4*	Plastic parts > 25g have material codes according to ISO 11469 referring ISO 1043.		井	+		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		╬	╬		
			井	+		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels). Product lifetime		<u> </u>			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\square	$\overline{}$			
P7.8*	Upgrading can be done using commonly available tools	\square	∺	╫		
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					
P7.11*	Material and substance requirements Product cover/housing material type:					
	Product cover/housing material type: Material type: >PC+ABS-FR(40)< Material type: >PC+ABS-TD15-FR(40)< Material type: >PC+ABS-TD15-FR(40)< (TD+MD)15FR(40)<	S-				
P7.12	Electrical cable insulation materials of power cables are PVC free.		\boxtimes			
P7.13	Electrical cable insulation materials of signal cables are PVC free		\boxtimes			
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.	\boxtimes				
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See					
	Note B2)					
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: FR(40)			Ш		
P7.17						
P7.18	ISO 1043-4: FR (16) Alt. 1					
17.10	Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%:					
	Comment: No legal limits exist, this is a market requirement. 1. Chemical name: YGN5151RFL, CAS #: confidential					
	2. Chemical name: <i>YGN5001RFD</i> , CAS #: <i>confidential</i>					
	3. Chemical name: ER5151RFL ,, CAS #: confidential					
	Alt. 2					
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:	\square				
P7.19	FR(40) Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,		∺	+		
1.13	R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)		Ш	Ш		
P7.20	1 1 0 0 7					
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.					
P7.22	Light sources are free from mercury					
P8	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg Batteries mg					
P8.1*	Battery chemical composition: LI-ION					
P8.2	Batteries meet the requirements of the following voluntary program/s: US RBRC			Ħ		

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 *	80E5; 80L0		
Issue date *	2015-01-13	Logo	lenovo.

Product environmental attributes - Market requirements (continued) Requirement met					net	
	Item Yes No n.a.					
P9 Energy consumption 9.1 For the product the following power levels or energy consumptions are reported: See P14						
	Energy mode * Power level at Power level at Power level at Reference / Standard for energy modes and test					
		100 V AC	115 V AC	230 V AC	method *	
Peak (On-max)		45/65 W	45/65	45/65 W	Full load	
Category 0			1 (1/)	•		
Short Idle State	- WOL Enable	d W	W	W	Use for ENERGY STAR V6 registration (P _{idle})	
Long Idle State	- WOL Enable	d W	W	W	Use for ENERGY STAR V6 registration (P _{idle})	
Sleep (S3) - WO	L Enabled	W	W	W	Use for ENERGY STAR V6 registration(P _{sleep})	
Sleep (S3) - WO	L Disabled	W	W	W	Reference	
Off (S5) - WOL E	Enabled	W	W	W	Use for ENERGY STAR V6 registration(Poff)	$\overline{\Box}$
Off (S5) - WOL D	Disabled	W	W	W	Use for EuP	$\overline{\sqcap}$
Category I1						_
Short Idle State	- WOL Enable	d 7.34 W	7.632 W	7.64 W	Use for ENERGY STAR V6 registration(P _{idle})	П
Long Idle State	- WOL Enable	d 6.02W	5.89 W	6.02 W	Use for ENERGY STAR V6 registration(P _{idle})	౼
Sleep (S3) - WO		0.578 W	0.590 W	0.603 W	Use for ENERGY STAR V6 registration (Psicep)	금
Sleep (S3) - WO		0.577 W	0.589 W	0.601 W	Reference	旹
Off (S5) - WOL E		0.232 W	0.234 W	0.237 W	Use for ENERGY STAR V6 registration(P _{off})	H
Off (S5) - WOL E		0.231 W	0.233 W	0.236 W	Use for EuP	H
EPS No-load		0.064 W	0.067 W	0.068 W	OSC 101 Eur	
(External power splugged in the wardisconnected from	all outlet but		0.007 11	0.000 11		
PTEC *	iii tiie product.)	W	W	W		\Box
Typical Energy C	onsumption					
TEC *						
Typical Energy C	consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Energy C	onsumption	26.84 kWh/year	27.53 kWh/year	27.71 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.25 + P _{sleep} x 0.35 + P _{long ldle} x 0.10 + P _{short ldle} x 0.30)	
3,	·	,	,	,	, and an analysis of the second	
Disalamanalation	-+ .1000+700		5) - WOL Enabled;	P _{sleep} : Sleep Mode	e(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Display resolution		<u> </u>				Ш
Print Speed *	: Ir	mages per minute				
	0,	e mode: 30 minutes				
		e energy save funct				
ENE		the energy requirem ersion: Version 6.0			gram/s: Product category: I1	П
	sions					
		Declared according to	to ISO 9296	Dadasa	Deployed Associated	
P10.1 Mode	e M	ode description		Declared A-weighted	d sound pressure level $L_{A} = (dB)$	
				sound power	Dustandan nasitiana	
				level L_{WAd}	Desktop Desktop	
					or Desk side (only if product is not	
Idle	*	HDD:Idle		* 2.51	operator attended)	
Oper	ration *	HDD: Operating		* 2.61	20.2	\Box
_ · _ ·		N/A		N/A	N/A	Ч
Meas	sured according	g to: 🔀 ISO7779 🗌	ECMA-74			
		Other			-74 with L _{pAm} measurement distance m)	
P10.2 The p	P10.2 The product meets the acoustic noise requirements of the following voluntary program/s:					

Model nu	mber *	80E5;80L0				
Issue date	e *	2015-01-13	Logo	lend	DVO.	
Product	environn	nental attributes - Market requirements (continued)		Requir	emen	t met
Item				Yes	No	n.a.
	Chemica	al emissions from printing products				
P10.3*	Test per	formed according to ECMA-328 (ISO/IEC 28360) standard, other specify:				\boxtimes
P10.4		emission rate (print phase) is (mg/h):				$\overline{\boxtimes}$
		Dust Ozone Styrene Benzene TVOC				
P10.5	Chemica	Il emission requirements of the following voluntary program/s are met for :				X
		Oust Ozone Styrene Benzene	TVOC 🗌	_	_	
		nagnetic emissions				
P10.6		er display meets the requirement for low frequency electromagnetic fields of the follo	wing voluntary	\boxtimes		
	program					
P11		able materials for printing products	1 (5 (5)			
P11.1*	-	Data Sheet (SDS) is available for the ink/toner preparation, even if not legally requ	,			
P11.2*	EN1228		e requirements	of		
P11.3*	2-sided (duplex) printing/copying is an integrated product function.				\boxtimes
P12	Ergonor	nics for computing products				
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technolog	jies.		\boxtimes	
P12.2*	The phys	sical input device meets the requirements of ISO 9995 and ISO 9241-410.			\boxtimes	
P13	Packagi	ng and documentation				
P13.1*	Product Product	packaging material type(s): <i>carton</i> weight (kg): <i>0.2738</i> packaging material type(s): <i>cushion</i> weight (kg): <i>0.089</i> packaging material type(s): <i>PAPER PAD</i> weight (kg): <i>0.030</i>				
P13.2*	Product	plastic packaging is free from PVC.		\boxtimes		
P13.3*	Specify r	media for user and product documentation (tick box):				
	Electroni	c 🔀, Paper 🔀, Other 🗌				
P13.4*	For pape fiber: 10	er user and product documentation, please specify contained percentage of post-co	nsumer recycled	i		
P14		nal information (See Note B4)				
	informati knowled	Supplier makes no representations, guarantees, assurances or warranties whether on contained in this document. All information provided by supplier in this documen ge available at the time of completion, and supplier shall have no obligation to upda here is approximate and provided for informational purposes only. See a Lenovo A on.	t is provided bas te such informat	sed on su tion. The i	pplier's nforma	i
P9	See Ene	rgy Star Qualified Notebooks & Tablet Computers for the latest information: ww.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup	&pgw_code=C	0		

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	Lenovo G50-80	Logo
Model Number	80E5; 80L0	_
Issue Date	2015-01-13	lenovo.
Additional information		

P / . I . I	Product environmental attributes					
(d)	year of manufacture:	2014				
(e)	E TEC 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:					
	Category (according to ErP Lot 3): A Etec: 18.38					
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enabled:					
	Category (according to ErP Lot 3): B Etec: 17.88					
(g)	idle state power demand (Watts);	6.15				
(h)	sleep mode power demand (Watts);	0.79				
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	0.79				
(j)	off mode power demand (Watts);	0.29				
(k)	off mode with WOL enabled power demand (Watts) (where enabled);					
(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:87.58%,87.60%,88.32%; 65W:89.18%,89.04%,89.92%					
	*internal note: show values for all available external power supplies					
(o)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):	300CYCLES				
(p-1)	the measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency:					
(p-2)	the measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:					
	Measuring the Energy Consumption of External Power Supplies, Appendix Z to 10 CFR Part 430.					
(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:							
	ENERGY STAR Test Method for Computers, Rev. Aug-2010							
(q)	sequence of steps for achieving a stable condition with respect to power demand::							
	Boot the computer and wait until the operating system has fully loaded. If necessary, run the initial operating system setup and allow all preliminary file indexing and other one-time/periodic processes to complete.							
(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)	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): 25							
(u)	the length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes): NA							
(v)	the length of time before the display sleep mode is set to activate after user inactivity (in minutes):							
(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)	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/50Hz, Total Harmonic Distortion <2 %								
Yes	NOTEDOOK B	No	n/a	This notebook computer is operated by battery/ies that cannot be access	ssed and replaced			
			II/a	by a non-professional user.	sscu and replaced			
(Battery replaceab	not user le)	(Battery user replaceable)		The battery[ies] in this product cannot be easily replathemselves	aced by users			