

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		
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 B5400; Lenovo M5400			
Model number *	20278, 80B6; 20281, 80B5			
Issue date *	2013-07-17			
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	Quality Control		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).		

Model number *	Lenovo B5400; Lenovo M5400	20278, 80B6; 20	281, 80B5
Issue date *	2013-07-17	Logo	lenovo.

Product	duct environmental attributes - Legal requirements				
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), 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).				
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 aromatic amines. (See legal reference and Note B1)			\boxtimes	
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as 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 microgram/cm²/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): http://www.lenovo.com/social_responsibility/us/en/materials.html	\boxtimes			
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, medica 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).				
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).				
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).				
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\boxtimes			
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).			X	
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 an hexavalent chromium by weight of these together.	d 🔀			
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 Montrea Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	al 🔀			

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

Model number *	Lenovo B5400; Lenovo M5400	20278, 80B6; 20	281, 80B5
Issue date *	2013-07-17	Logo	lenovo.

Product	t environmental attributes - Market requirements - Environmental conscious design Re	quire	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	\boxtimes		
P7.2*	Plastic materials in covers/housing have no surface coating.		\boxtimes	
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.	\boxtimes		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		Ħ	Ħ
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		一一	∺
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\square	$\overline{}$	$\overline{}$
P7.8*	Upgrading can be done using commonly available tools	X	╫	╫
P7.9.				╬
	Spare parts are available after end of production for: 5 years			_Ц
P7.10	Service is available after end of production for: 5 years			
D= 44	Material and substance requirements			
P7.11*	Product cover/housing material type:			
D7 10	Material type: Material type: Material type: Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.	 		-
P7.13	Electrical cable insulation materials of signal cables are PVC free	Щ.	\boxtimes	_ <u>_</u> _
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: >PC+ABS-(TD05)FR(40)<;>PC+ABS-I-(TD15)FR(40)<;>PC+ABS-I-(MD8)FR(40)<			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: <i>Brominated Epoxy Resin See P14</i>			
P7.18	Alt. 1 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: , CAS #:			
	2. Chemical name: , CAS #: 3. Chemical name: , CAS #:			
	3. Chemical name: , CAS #: Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
	FR(40)	\boxtimes		
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20	Of total plastic parts' weight >25g, recycled material content is 6.5(M5400);6.3(B5400)%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury	\boxtimes		
Do	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg			
P8	Batteries Determined and a single service of the least termined and termined and the least			
P8.1*	Battery chemical composition: Lithium lon/Lithium Manganese Dioxide			<u> </u>
P8.2	Batteries meet the requirements of the following voluntary program/s: US RBRC			

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 *	Lenovo B5400; Lenovo M5400	20278, 80B6; 20	281, 80B5
Issue date *	2013-07-17	Logo	lenovo.

Product 6	luct environmental attributes - Market requirements (continued) Requirement me					met
Item						n.a.
P9 Energy consumption						
9.1	For the product the	e following power leve	els or energy cons	umptions are re	ported: See P14	
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 *	
Peak (On-	max)	W	W	W	Full load	
Category	Category A					
	- WOL Enabled	7.788(50Hz)/6.42	<i>6.888</i> W	7.020 W	Use for ENERGY STAR V5 registration (Pidle)	\Box
Sleen (S3)	- WOL Enabled	0.648(50Hz)/0.64	0.660 W	0.720 W	Use for ENERGY STAR registration(P _{sleep})	+
	- WOL Disabled	W	W	W	Reference	\perp
	WOL Enabled	0.264(50Hz)/0.20	0.216 W	0.336 W	Use for ENERGY STAR V5 registration(Post)	1
	VOL Disabled	0.36 W	0.37 W	0.39 W	Use for EuP	
		0.30 VV	0.37 VV	0.39 W	OSE IOI EUP	
Category		T	I			
	- WOL Enabled	6.372(50Hz)/6.67	<i>6.924</i> W	<i>6.492</i> W	Use for ENERGY STAR V5 registration(P _{idle})	Ш
	- WOL Enabled	0.948(50Hz)/0.94	<i>0.948</i> W	1.008 W	Use for ENERGY STAR V5 registration (P _{sleep})	
Sleep (S3)	- WOL Disabled	W	W	W	Reference	
Off (S5) - V	WOL Enabled	0.468(50Hz)/0.25	0.384 W	<i>0.360</i> W	Use for ENERGY STAR V5 registration(P _{off})	
Off (S5) - 1	WOL Disabled	0.33 W	0.34 W	<i>0.37</i> W	Use for EuP	
EPS No-loa	ad	W	W	W		
charger plu	ower supply / gged in the wall isconnected from					
PTEC *	,	W	W	W		П
	ergy Consumption					
TEC * Typical Ene	ergy Consumption	kWh/week	kWh/week	kWh/week		
ETEC *		UMA:	UMA:19.815	UMA:20.845	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.6 + P_{sleep} \times 0.1 + P_{sleep})$	
Annual Ene	ergy Consumption	22.422(50Hz)/18. 512(60Hz)	DIS:21.045 kWh/year	DIS:19.836 kWh/year	P _{idle} x 0.3)	
			WOL Enabled; P _{sleet}	: Sleep Mode(S3)	- WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Display res	olution* : 1366X76	68 Megapixels				Ш
Print Speed	d* : In	nages per minute				\boxtimes
Default time	e to enter energy s	ave mode: 25 minutes	3			
P9.2*	Information about	the energy save func	tion is provided wi	th the product.		
P9.3*	•	s the energy requirem version: <i>Version 5.0</i>			gram/s: Product category:	
P10	Emissions					
		- Declared according	to ISO 9296			
P10.1	Mode	Mode description		Declared A-weighted	Declared A-weighted	
				sound power	er	
				level $L_{W extsf{Ad}}$ (
					Desktop (only if product is not	
					operator attended)	
	Idle	HDD:Idle		* 2.7	18	
	Operation Other mode	* HDD: Operating		* 3.6	29	Ш
		ng to: 💟 1907770 🗆	TECMA 74			
	Measured accordi	ng to: ISO7779 L	ECMA-74	red by ECMA-74	with L _{pAm} measurement distance m)	
P10.2	The product meets	s the acoustic noise re				\square

Model number *	Lenovo B5400; Lenovo M5400	20278, 80B6; 20	281, 80B5
Issue date *	2013-07-17	Logo	lenovo.

Product 6	environmental attributes - Market requirements (continued) Re	equire	ment	met
Item	· · · · ·	Yes	No	n.a.
	Chemical emissions from printing products			
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard, other specify:			$\overline{\mathbf{X}}$
P10.4	Typical emission rate (print phase) is (mg/h):			\boxtimes
	Dust Ozone Styrene Benzene TVOC			
P10.5	Chemical emission requirements of the following voluntary program/s are met for :			\times
	Dust Ozone Styrene Benzene TVOC			
	Electromagnetic emissions			
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s: B5400: JEITA-ITR/MPR-II; M5400: MPR-II			
P11	Consumable materials for printing products			
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).			\boxtimes
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 an integrated product function.			X
P12	Ergonomics for computing products			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	\boxtimes		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			\boxtimes
P13	Packaging and documentation			
P13.1*	Product packaging material type(s): Corrugated carton Product packaging material type(s): paper(manual) Product packaging material type(s): Paper cushion Product packaging material type(s): LDPE bag weight (kg): 0.016 weight (kg): 0.361 weight (kg): 0.135 weight (kg): 0.070			
P13.2*	Product plastic packaging is free from PVC.	\boxtimes		
P13.3*	Specify media for user and product documentation (tick box): Electronic , Paper , Other .			
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0%			
P14	Additional information (See Note B4)			
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, r information contained in this document. All information provided by supplier in this document is provided based knowledge available at the time of completion, and supplier shall have no obligation to update such information. provided here is approximate and provided for informational purposes only. See a Lenovo Account Representatinformation.	on support. The in	olier's forma	tion
P9	See Energy Star Qualified Notebooks & Tablet Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CO			
	mitp://www.energystar.gov/index.ciiii?tuseaction=ind_a_product.snow=roductGroupapgw_code=co			

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 M5400	Logo
Model Number	20281, 80B5	_
Issue Date		lenovo.
Additional information		

(d)	year of ma	nufacture:					Availib	le on product labe	
(e)	E TEC value (kWh) 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)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enabled:								
		6.59 7.10							
(g)	idle state p	ower demand	(Watts);					5.4	
(h)	sleep mode power demand (Watts);							0.82	
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);							0.86	
j)	off mode power demand (Watts);						0.39		
(k)	off mode with WOL enabled power demand (Watts) (where enabled);						0.42		
(I)	internal pov	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable): N/A							
	10%	20%	50%	100%	Average				
(m)	external power supply efficiency (if applicable):								
	10%	20%	50%	100%	Average	•			
	or level: V								
(o)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 500 cycles								
(f)	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:								
	total harmo	test voltage in V and frequency in Hz 230V/50Hz total harmonic distortion of the electricity supply system≤2% Information and documentation on the instrumentation, set-up and circuits used for electrical testing							
	Instr.	Instrument	Instrume		Range Use		Make and Model **		
	Code	I.D.	Туре	1	Or ***		IVIANE ALIU IVIUUEI		

	1	980	800014	CHROMA	100-300VAC 50-60Hz 400Hz, 5A, 500 ,	61502		
	2	990	800321	YOKOGAWA	600V, 10A, 5KW	WT 210		
	3	990	105548	ISUZU	20-28 degree C 30-80%	TH-27R		
	4	71	0Q03R	CASIO	Full Range	HS-3V		
	5	990	0105627	TECPEL	0~20(m/sec)	AVM-714		
(p-1)	the measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: N/A							
(p-2)	the m		nent meth	odology used to	determine information mentioned in poi	nts (m) - external P	SU	
					level V			
(p-3)	the measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries: Charge battery with standard charge method and discharge battery with 0.5Cmin discharging current until battery voltage reaches 3.0V							
(p-4)					ermine information mentioned in maximulot IT Eco Declaration: EN62623	m, idle, sleep, off mod	е	
(q)	seque	ence of st	eps for ac	hieving a stable co	ndition with respect to power demand::			
				Power on ->	Wait 5 minutes -> Stable condition			
(r)	descr	iption of I	now sleep	and/or off mode wa	as selected or programmed:			
				Begin menu -:	> Power -> Select sleep or off mode			
(s)	sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:							
				Settings-> Re	estore default settings for this plan			
(t)					e the computer automatically reaches able power demand requirements for slee			
(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): N/A							
(v)	the length of time before the display sleep mode is set to activate after user inactivity (in minutes): 10 minutes							
(w)	inform	nation on	the energy	y-saving potential o	of power management functionality:			
					N/A			
(x)	user i	nformatio	n on how	to enable the powe	er management functionality:			
					Refer to User Guide			
(z)	the el	ectricity s		tem, — information	voltage in V and frequency in Hz, — total and documentation on the instrumentation			
Additio	n Notebo	ok Batte						
Yes	No	n/a	This note user.	ebook computer is	operated by battery/ies that cannot be a	ccessed and replaced	l by a non-professional	
			The ba	ttery[ies] in th	is product cannot be easily rep	laced by users t	hemselves	
Additional information								