

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	
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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_u	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 PC						
Commercial name *	Lenovo B590A						
Model number *	<i>M/T: 20206, 3761</i>						
Issue date *	2012, July 30						
Intended market *	🔀 Global 📃 Europe 📃 Asia, Pacific & Japan 📃 Americas 📃 Other						
Additional information							

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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).	bl 🔀	

Model n	umber *	Lenovo B590A	M/T: 20206, 37	761			
Issue da	ate *	2012, July 30	· · · · · · · · · · · · · · · · · · ·	Logo	lenc	vo	
Produc	t environ	mental attributes - Legal red	quirements		Require	ment	met
tem					Yes	No	n.a.
P1	Hazardo	ous substances and preparation	ns				
P1.1*	0.1% po	s do not contain more than; 0.1% lybrominated biphenyls (PBB) or e and Note B1)			n, 🔀		
P1.2*	Products	s do not contain Asbestos (see le nt: Legal reference has no maxim			\square		
P1.3*	Products hydrobro trichloro	s do not contain Ozone Depleting omofluorocarbons (HBFC), hydro ethane, methyl bromide (see lega ration values.	Substances: Chlorofluorocarbon chlorofluorcarbons (HCFC), Halo	ns, carbontetrachloride, 1,1,1-			
P1.4*	Products	s do not contain more than; 0.005 /I (PCT) in preparations (see lega		3), 0.005% polychlorinated	\square		
P1.5*	Products	s do not contain more than 0.1% sontaining at least 48% per mass o	short chain chloroparaffins (SCC		e 🔀		
P1.6*	Textile a Tris-(azi	and leather parts with direct skin c ridinyl)-phosphineoxide (TEPA), r nt: Legal reference has no maxim	contact do not contain Tri-(2,3,-dil polybrominated biphenyl (PBB) (s	bromopropyl)-phosphate (TRIS),			
P1.7*	Textile a	and leather parts with direct skin c c amines. (See legal reference an	contact do not contain more than	0.003% Azo colorants that split			\boxtimes
P1.8*	Wooden pentach	parts do not contain arsenic and lorophenol and derivatives (see le nt: Legal reference has no maxim	l chromium as a wood preservatio egal reference).	on treatment as well as			
P1.9*	Parts wit microgra	th direct and prolonged skin conta am/cm ² /week (see legal reference nt: Max limit in legal reference wh	act do not release nickel in conce e).				
P1.10*	REACH	Article 33 information about subs ww.lenovo.com/social_responsibil	stances in articles is available at (\boxtimes		
P2	Batterie	es					
P2.1*	more tha marked	oduct contains a battery or an acc an 0.0005% of mercury (for buttor with the chemical symbol for the d in user manual. (See legal refere	n cells only) by weight, or more the metal concerned, Hg or Pb. Information of the second s	nan 0.004% of lead, it shall be			
P2.2*	Button c	ells used in the product do not co lators do not contain more than 0.	ontain more than 2% by weight of		\boxtimes		
P2.3*	Batteries design c or data i	s and accumulators are easily ren of the product). Exception: Batterin ntegrity reasons do not have to b	novable by either users or service ies that are permanently installed e "easily removable". (See legal i	e providers (as dependent on the d for safety, performance, medica			
P3		EMC connection to the telepho					
P3.1*	The proc	duct complies with legally require	d safety standards as specified (s	see legal reference).	\square		
P3.2*	The proc	duct complies with legally require	d standards for electromagnetic o	compatibility (see legal reference).		
P3.3*		ct is intended for connection to a p ally required standards for radio a					
P3.4*	The proc	duct is labeled to show conformar	nce with applicable legal requiren	nents (see legal reference).	\square		
P4		nable materials					
P4.1*	legal ref	o conductor (drum, belt etc.) is us erence and Note B1).		× ·			\square
P4.2*		ner is used in the product, it does					\square
P4.3*	product/ requirem	K/toner formulation/preparation is packaging is adequately labeled nents is available (see legal reference)	and a Safety Data Sheet (SDS) in				
P5		t packaging					
P5.1*	hexavale	ng and packaging components ent chromium by weight of these	together.		nd 🔀		
P5.2*		backaging material is marked acco			\square		
P5.3*	Protocol	duct packaging material is free I (see legal reference). nt: Legal reference has no maxim		ces as specified in the Montre	al 🔀		

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

Model n	umber	Lenovo B590A M/T: 20206, 3761				
Issue da	ate *	2012, July 30 Logo	lene	DVO		
Droduc	tonviron	mentel ettributes. Market requiremente. Environmentel conscieue design	Requirement met			
Item		mental attributes - Market requirements - Environmental conscious design atory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a	
P6		nt information	100		11.0	
P6.1*		on for recyclers/treatment facilities is available (see legal reference).				
P7	Design					
		mbly, recycling				
P7.1*	Parts that	t have to be treated separately are easily separable	\square			
P7.2*	Plastic n	naterials in covers/housing have no surface coating.		\square		
P7.3*	Plastic p		Ē	Ē		
P7.4*		arts >25g have material codes according to ISO 11469 referring ISO 1043.		Ē	Ē	
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly available tools.		H	H	
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).		-#	- H	
17.0	Product					
P7.7*		ng can be done e.g. with processor, memory, cards or drives				
P7.8*		ig can be done using commonly available tools		-#	- H	
P7.9.	10				<u> </u>	
		arts are available after end of production for: 5 years				
P7.10		s available after end of production for: 5 years				
D7 44*		and substance requirements				
P7.11*		cover/housing material type: aterial type: PC+ABS-FR(40) Material type: Material type:				
P7.12		I cable insulation materials of power cables are PVC free.		\boxtimes		
P7.12		I cable insulation materials of signal cables are PVC free	<u> </u>		-H	
P7.13		5			<u> </u>	
		/housing plastic parts >25g are free from chlorine and bromine.			<u> </u>	
P7.15	Note B2					
P7.16	Marking:	tarded plastic parts >25g in covers / housings are marked according ISO 1043-4: FR(40)				
P7.17		Il specifications of flame retardants in printed circuit boards >25g (without components): PA (additive) , TBBPA (reactive) , Other; chemical name: <i>DOPO(9,10-dihydro-9-oxa-10-phosphaphenanthrene-10-oxide)</i> , CAS #: <i>35948-25-5</i>				
	ISO 104	Il specifications of flame retardants in printed circuit boards (without components) >25g according 3-4: <i>FR(40)</i>				
P7.18		etarded plastic parts >25g contain the following flame retardant substances/preparations ations above 0.1%:	in 🗌			
	Provide complete 1. Chem 2. Chem	at: No legal limits exist, this is a market requirement. a list of all used flame retardants including MSDS for each flame retardant. The list must conta e chemical name, CAS number and supplier. ical name: , CAS #: , Supplier: ical name: , CAS #: , Supplier:	in			
	3. Chem Alt. 2	ical name: , CAS #: , Supplier:				
		I specifications of flame retardants in plastic parts >25g according ISO 1043-4: FR(40)				
P7.19		arts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, 6, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)				
P7.20		lastic parts' weight >25g, recycled material content is 10 % .				
P7.21		plastic parts' weight >25g, biobased material content is 0%.				
P7.22	Light sou	Irces are free from mercury				
P8	Batterie					
P8.1*	Battery of	hemical composition: Lithium Ion/Lithium Manganese Dioxide				
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 *		ovo B590A	<u> </u>	20206, 376 [°]		
Issue date *	2012, Ju	ly 30			Logo leno	
Product enviror	nmental at	tributes - Market	requirements (c	ontinued)	Bequire	ement me
Item				/	Yes	No n.a
	y consump					
9.1 For the	e product the	e following power lev	els or energy consu	mptions are reported	ed:	
Energy mode		100 V AC	115 V AC	Power level at 230 V AC	and test method *	nodes
Peak (On- max)		65/90 W	65/90 W	<u>65/90</u> W	Full load	
Category A						
Idle State - WOL I		W	W	W	Use for ENERGY STAR Registration(I	· ·
Sleep (S3) - WOL		W	W	W	Use for ENERGY STAR Registration(P _{sleep})
Sleep (S3) - WOL		W	W	W	Reference	
Off (S5) - WOL En		W	W	W	Use for ENERGY STAR Registration(Poff)
Off (S5) - WOL Di	sabled	W	W	W	Use for EuP	
Category B						
Idle State - WOL I	Enabled	W	W	W	Use for ENERGY STAR Registration(I	P _{idle})
Sleep (S3) - WOL	Enabled	W	W	W	Use for ENERGY STAR Registration(P _{sleep})
Sleep (S3) - WOL	Disabled	W	W	W	Reference	
Off (S5) - WOL En	abled	W	W	W	Use for ENERGY STAR Registration(P _{off})
Off (S5) - WOL Di	sabled	W	W	W	Use for EuP	
EPS No-load (External power su charger plugged in outlet but disconne the product.)	the wall	0.18 W	0.19 W	0.26 W		
P _{TEC} Typical Energy Col	nsumption	W	W	W	(Workstation Levels) $P_{TEC} = 0.35^*P_{off} + 0.10^*P_{sleep} + 0.55^* I_{sleep}$	Pidle
TEC Typical Energy Co	nsumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Energy Cor	nsumption	(A) (B)	(A) (B)	(A) (B)	(Desktop, Integrated Desktop, and Notebook Level $E_{TEC} = (8760/1000) * (P_{off} * T_{off} + F_{sleep} + P_{idle} * T_{idle})$	
Display resolution	: 1366 x 7	68 Megapixels				
Print Speed	: In	ages per minute				
•		ave mode: 25 minute	s			
	0,	the energy save fund		the product		
P9.3* The pro	oduct meets GY STAR®	the energy requirenversion: Version 5.0	nents of the followin D dated July 1, 200	g voluntary program Product category:	n/s: A, B	
P10 Emiss	, ,	IERGY STAR for Ex	iternal Fower Supp	ines Engibility Chi		
		Declared according	to ISO 9296			
P10.1 Mode	1	Mode description		Declared A-weighted sound power level L_{WAd} (B)	$\begin{array}{c c} & \text{Declared A-weighted} \\ & \text{sound pressure level } L_{p\text{Am}} \ \text{(dB)} \\ \hline & \text{Operator position } \end{array}$	P1 0.1
					or Desk side	
Idle	*	HDD: Idle		* 3.0	21	
Operat		HDD: Operating		* 4.0	32	
Other I						
Measu	rea accordir	ng to: 🔀 ISO7779		ed by FCMA-74 with	h L _{pAm} measurement distance m)	
P10.2 The pr		the acoustic noise i				

Model nur	nber *	Lenovo B590A M/T: 20206, 3761				
Issue date	*	2012, July 30	ogo	leno	VO.	
Product	onvironn	nental attributes - Market requirements (continued)		Require	mont	mot
Item		nental attributes - Market requirements (continued)		Yes	No	n.a.
Item	Chemica	al emissions from printing products		Tes	INU	II.a.
P10.3*		formed according to ECMA-328 (ISO/IEC 28360) standard , other specify:				\boxtimes
P10.4		emission rate (print phase) is (mg/h):				$\overline{\mathbf{X}}$
		Dust Ozone Styrene Benzene TVOC				
P10.5		al emission requirements of the following voluntary program/s are met for :				
	Electron	nagnetic emissions				
P10.6		er display meets the requirement for low frequency electromagnetic fields of the follow /s: MPR-II (3 pin AC adapter only)	ving voluntary	\square		
P11		hable materials for printing products				
P11.1*	A Safety	Data Sheet (SDS) is available for the ink/toner preparation, even if not legally require	ed (see P4.3).			\boxtimes
P11.2*	Paper c EN1228	ontaining post-consumer recycled fibers can be used, provided that it meets the 1.	requirements o	f		\square
P11.3*	2-sided ((duplex) printing/copying is an integrated product function.				\boxtimes
P12		nics for computing products				
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technologie	es.	\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	packaging material type(s): <i>Corrugated Cardboard</i> weight (kg): <i>0.682</i> packaging material type(s): <i>Recycled Polyethylene (RLDPE)</i> weight (kg): <i>0.192</i> packaging material type(s): <i>Others(Plastic Bags)</i> weight (kg): <i>0.022</i>				
P13.2*		plastic packaging is free from PVC.		\boxtimes		
P13.3*		nedia for user and product documentation (tick box): ic 🔀, Paper 🔀, Other 🔲				
P13.4*		er user and product documentation, please specify contained percentage of post-cons 6. (Japan only 70%)	sumer recycled			
P14		nal information (See Note B4)				
	informati knowled	Supplier makes no representations, guarantees, assurances or warranties whether e ion contained in this document. All information provided by supplier in this document ge available at the time of completion, and supplier shall have no obligation to update here is approximate and provided for informational purposes only. See a Lenovo Action.	is provided base such informatic	d on supp n. The inf	olier's ormati	
P9		ERGY STAR Qualified Notebooks & Tablet Computers for the latest information ownloads.energystar.gov/bi/qplist/laptops_prod_list.xls	:			

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 B590	Logo
Model Number	20206, 3761, 20208, 6274	
Issue Date	2014/ 6/ 26	lenovo
Additional information		

P7.1.1	Product environmental at	tributes				
(d)	year of manufacture:				Ava	ilible on product labe
(e)	E TEC value (kWh) and ca are disabled and if the sys display:		N/A			
(f)	E TEC value (kWh) per Er enabled:	P Lot 3 Category and c	apability adjus	stments applied when all d	iscrete graphics	s cards (dGfx) are
		tec25.33 tec29.94				
(g)	idle state power demand (Watts);				9.94
(h)	sleep mode power demand	d (Watts);				1.14
(i)	sleep mode with WOL ena	bled power demand (W	atts) (where e	nabled);		1.14
(j)	off mode power demand (Watts);					0.84
(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%	Avera	ge		
(m)	external power supply efficiency (if applicable):					
	10% 20%	50% 100%	Avera	ge ;		
	or level: V					
(0)	the minimum number of loa	ading cycles that the ba	tteries can wi	hstand (applies only to no	tebook computers	s): <u>300</u>
(f)	test parameters for measu electricity supply system, – for electrical testing:					
	Test voltage in V and frequ Total harmonic distortion o Information and document	f the electricity supply s		nd circuits used for electric	cal testing	
	Instrument	Range U				
	Туре	Or ***		Make and Mode		
	AC Power Source	1~280VAC;1~55	0HZ·1000V	NF;EC1000S; SN:9	152124	

	I	А.		
	Digital Watch	Full range	CASIO; HS-70W; SN:208Q08R	
	Power Meter	0~600V;0~20A	YOKOGAWA;WT210;SN:91M9445 60	
	Hygrothermograph	15~35 °C/15~90%	Testo; 608-H1,SN:1034895602	
	Thermal anemometer	0~20m/s,-20~70℃	Testo;425;SN:02591883	
	Light Measuring	1°;1-300cd/ m2	Konica Minolta;LS-110;	
(p-1)	the measurement methodolog efficiency:	y used to determine inform NA	ation mentioned in points (I) – internal PSU	
(p-2)	efficiency: The adapter efficiency (wa	tts output/watts input) shall	tion mentioned in points (m) – external PSU be more than 87.0% (minimum) that is the 115Vac and 230Vac input voltage condition.	
(p-3)			ation mentioned in points (o) - loadingcycles	1
		Retain 68 % of Cmin (Discharge : 0.5C(EL		
(p-4)	the measurement methodology power as defined in Point P9.1 i		mentioned in maximum, idle, sleep, off mode ion:	
		IEC 62301		
(q)	sequence of steps for achieving	a stable condition with respec	t to power demand::	
	P	ower on -> Wait 5 minutes ->	Stable condition	
(r)	description of how sleep and/or	off mode was selected or prog	grammed:	
	Ве	gin menu -> Power -> Select	sleep or off mode	
(s)	sequence of events required to off mode:	reach the mode where the equ	ipment automatically changes to sleep and/or	
	Control Panel->Power	Options-> Change Settings-	> Restore default settings for this plan	
(t)		•	utomatically reaches sleep mode, or another d requirements for sleep mode (in minutes):	30
(u)	the length of time after a period power mode that has a lower		the computer automatically reaches a nan sleep mode (in minutes):	N/A
(v)	the length of time before the c	lisplay sleep mode is set to a	activate after user inactivity (in minutes):	10
(w)	information on the energy-savin	g potential of power managem	ent functionality:	
		NA		
(x)	user information on how to enab	ble the power management fur	actionality:	
		Refer to User G	lide	
(Z)			equency in Hz, — total harmonic distortion of the n the instrumentation, set-up and circuits used	
		230V/50Hz		
	No. This notebook	computer is operated by bette	nuise that cannot be accessed and replaced by	(a non-professional
Yes	user.		ry/ies that cannot be accessed and replaced by	•
	The battery	ies] in this product ca	nnot be easily replaced by users the	mselves