

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 / 5J3 Morrisville, North Carolina 27560 alcarter@lenovo.com	lenovo.
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environmen	t.html
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 *	otebook PC						
Commercial name *	Lenovo G405s						
Model number *	20254;80AL						
Issue date *	2013-4-27						
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 F				
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).	l 🔀			

Model nu	umber *	Lenovo G405s			
Issue da	te *	2013-4-27 Logo	lena	vo).
Product	t environ	mental attributes - Legal requirements	Require	ment	met
Item			Yes	No	n.a.
P1 P1.1*	Products chromiu	us substances and preparations do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent n, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See perence and Note B1)			
P1.2*	Products	do not contain Asbestos (see legal reference). 1: Legal reference has no maximum concentration value.	\square		
P1.3*	Products hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), mofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1- ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum ation values.			
P1.4*	Products	do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated I (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 containing at least 48% per mass of chlorine in the SCCP (see legal reference).	\boxtimes		
P1.6*	Textile a Tris-(azii	nd leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), idinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). It: Legal reference has no maximum concentration values.			\square
P1.7*	Textile a	nd leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split amines. (See legal reference and Note B1)			\boxtimes
P1.8*	Wooden pentachl	parts do not contain arsenic and chromium as a wood preservation treatment as well as prophenol and derivatives (see legal reference). It: Legal reference has no maximum concentration values.			
P1.9*	Parts wit microgra	h direct and prolonged skin contact do not release nickel in concentrations above 0.5 m/cm ² /week (see legal reference).			
P1.10*	REACH	It: Max limit in legal reference when tested according to EN1811:1998. Article 33 information about substances in articles is available at (add URL or mail contact): w.lenovo.com/social_responsibility/us/en/ThinkGreen_products.html#environment	\boxtimes		
P2	Batterie				
P2.1*	more that marked	duct contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains n 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is in user manual. (See legal reference)			
P2.2*	accumul	ells used in the product do not contain more than 2% by weight of mercury. Other batteries or ators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes		
P2.3*	design o	and accumulators are easily removable by either users or service providers (as dependent on the f the product). Exception: Batteries that are permanently installed for safety, performance, medica ntegrity reasons do not have to be "easily removable". (See legal reference)			
P3		MC connection to the telephone network and labeling			
P3.1*	The proc	uct complies with legally required safety standards as specified (see legal reference).	\square		
P3.2*	referenc				
P3.3*	with lega	t is intended for connection to a public telecom network or contains a radio transmitter, it complies Ily required standards for radio and telecommunication devices (see legal reference).			
P3.4*		uct is labeled to show conformance with applicable legal requirements (see legal reference).			
P4		able materials			
P4.1*	legal refe	o conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see prence and Note B1).			
P4.2*		er is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).		<u> </u>	
P4.3*	product/	/toner formulation/preparation is classified as hazardous according to applicable regulations, the backaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these ents is available (see legal reference).			
P5		packaging			
P5.1*	hexavale	ng and packaging components do not contain more than 0.01% lead, mercury, cadmium and nt chromium by weight of these together.			
P5.2*	Plastic p	ackaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	\square		
P5.3*	Protocol	duct packaging material is free from ozone depleting substances as specified in the Montrea (see legal reference). It: Legal reference has no maximum concentration values.	ll 🔀		

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

Model n	umber *	Lenovo G405s			
Issue da	ate *	2013-4-27 Logo	len	ovo	
Produc	t environ	mental attributes - Market requirements - Environmental conscious design	Require	amont	mot
Item		atory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6		nt information	100	110	ma.
P6.1*	Informat	on for recyclers/treatment facilities is available (see legal reference).			
P7	Design				
		mbly, recycling			
P7.1*		thave to be treated separately are easily separable		<u> </u>	<u> </u>
P7.2*		naterials in covers/housing have no surface coating.		<u> </u>	<u> </u>
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.	\square		
P7.5	Plastic p	arts are free from metal inlays or have inlays that can be removed with commonly available tools	. 🛛		
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes		
		lifetime			
P7.7*		g can be done e.g. with processor, memory, cards or drives	\square		
P7.8*	Upgradir	g can be done using commonly available tools	\boxtimes		
P7.9.	Spare pa	rts are available after end of production for: 5 years			
P7.10	Service	s available after end of production for: 5 years			
		and substance requirements			
P7.11*	Product	cover/housing material type:			
		type: PC+ABS-FR(40) Material type: Material type:			
P7.12	Electrica	I cable insulation materials of power cables are PVC free.		\square	
P7.13	Electrica	I cable insulation materials of signal cables are PVC free		\boxtimes	
P7.14	All cover	/housing plastic parts >25g are free from chlorine and bromine.	\square		
P7.15	All printe Note B2	d circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (S	See		
P7.16	Flame re Marking:	tarded plastic parts >25g in covers / housings are marked according ISO 1043-4: FR(40)			
P7.17	TBBPA Alt. 2	I specifications of flame retardants in printed circuit boards >25g (without components): additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
P7.18		3-4: Brominated Epoxy Resin See P14	9		
17.10	Flame r concentr	etarded plastic parts >25g contain the following flame retardant substances/preparations ations above 0.1%:	in 🗌		
	Provide complete 1. Chem 2. Chem	 nt: 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 cont chemical name, CAS number and supplier. ical name: , CAS #: , Supplier: ical name: , CAS #: , Supplier: 	ain		
	Alt. 2	ical name: , CAS #: , Supplier: Il specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
P7.19	Plastic p	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)	\boxtimes		
P7.20		plastic parts' weight >25g, recycled material content is 3.7% .			
P7.21		plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sou	irces are free from mercury	\square		
P8	Batterie				
P8.1*		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 nur	mber *	Leno	vo G405s							
Issue date	*	2013-4-2					Logo	lena	vo.	
Duaduat								Demuin		
Item	environm	iental at	tributes - Market	requirements (co	ontinuea)			Require Yes	ement No	n.a.
P9	Energy c	onsumpt	tion					165	NU	n.a.
9.1	0.		e following power lev	els or enerav consu	mptions are reporte	ed: See P14				
			pped w/ WOL Enable		p			\boxtimes		
Energy mode *			Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference and test me		d for energy i	modes	
Peak (On-	max)		<i>90</i> W	90 W	90 W	Full load				
Categor	<u>у В</u>		•			•				
Idle State	- WOL En	abled	10.703W	10.722W	10.820 W	Use for En	ergy Star	V5 registration	(P _{idle})	
Sleep (S3)) - WOL Er	nabled	1.596 W	1.600 W	1.630W	Use for En	ergy Star	V5 registration	(P _{sleep})	
Sleep (S3)) - WOL Di	sabled	1.520 W	1.527 W	1.550 W	Reference				
Off (S5) -	WOL Enat	oled	0.437 W	0.437 W	0.465 W	Use for En	ergy Star	V5 registration	(P _{off})	
Off (S5) -	WOL Disa	bled	0.437W	0.437 W	0.448 W	Use for Eu	P			
EPS No-loa	ad		0.085 W	0.086 W	0.194 W					
charger plu outlet but c	(External power supply / charger plugged in the wall outlet but disconnected from the product.)									
TEC			kWh/week	kWh/week	kWh/week					\boxtimes
Typical En	ergy Consi	umption								
ETEC * Annual Ene	ETEC * Annual Energy Consumption		31.220 kWh/year	31.231 kWh/year	31.385 kWh/year	$E_{TEC} = (87)$ 0.1 + P_{idle}		(P _{off} x 0.6 + F	sleep X	
			Poff: Off Mode(S5) - V	VOL Enabled; P _{sleep} : S	Sleep Mode(S3) - WOL	Enabled; P _{id}	le: Idle State	- WOL Enabled		
Display res	solution :	1280*800	0 Megapixels							
Print Spee	d :		Images per minu	te						
Default tim	e to enter	energy sa	ave mode: 25 minute	s						
P9.2*	Informatio	on about t	the energy save fund	tion is provided with	the product.			\square		╵╤╴
P9.3*	The prod	uct meets	the energy requiren	nents of the followin	g voluntary program	/s:				
	ENERGY	′ STAR®	version: Version 5.0) dated July 1, 200	Product category:	В		\boxtimes		
P10	Emissio		ergy Star for Exter	nai Power Supplies	Eligibility Criteria	version 2				
		-	Declared according	to ISO 9296						
P10.1	Mode		Mode description		Declared		Declared A	-weighted		
					A-weighted sound power	sound	pressure le	evel L_{pAm} (dB))	
						Operator pos	sition 🔀	Bystander po	sitions	-
					-wAu (-)		sktop 🔀	<i>,</i> , , , , , , , , , , , , , , , , , ,		
						or Desk	side 🗌	(only if product operator atte		
	Idle	*	HDD: Idle		* 3.0		24.		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	
	Operation	า *	HDD: Operating		* 3.1		24.	6		
	Other mo	de								
	Measured	d accordir	° <mark>=</mark> -	ECMA-74						
Dia c	l		Other		ed by ECMA-74 with		urement dis	stance r	n)	
P10.2	The prod	uct meets	the acoustic noise r	requirements of the	tollowing voluntary p	program/s:				\boxtimes

Model nu	umber *	Lenovo G405s				
Issue dat	te *	2013-4-27 Logo	le		10.	
Product	environi	mental attributes - Market requirements (continued)	Re	quirer	nent	met
Item		· · · · ·		Yes	No	n.a.
	Chemic	al emissions from printing products				
P10.3*	Test per	rformed according to ECMA-328 (ISO/IEC 28360) standard , other specify:				\boxtimes
P10.4	Typical	emission rate (print phase) is (mg/h):				
		Dust Ozone Styrene Benzene TVOC				
P10.5	Chemica	al emission requirements of the following voluntary program/s are met for :				\mathbf{X}
	1	Dust Ozone Styrene Benzene TVOC				_
	Electro	magnetic emissions				
P10.6		er display meets the requirement for low frequency electromagnetic fields of the following	voluntary	\boxtimes		
	1 0	n/s: MPR-II				
P11		nable materials for printing products				
P11.1*	-	y Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (s				\boxtimes
P11.2*	Paper c EN1228	containing post-consumer recycled fibers can be used, provided that it meets the requ	irements of			\square
P11.3*	2-sided	(duplex) printing/copying is an integrated product function.				\boxtimes
P12	Ergono	mics for computing products				
P12.1*	The disp	play meets the ergonomic requirements of ISO 9241-307 for visual display technologies.		\boxtimes		
P12.2*	The phy	vsical input device meets the requirements of ISO 9995 and ISO 9241-410.				
P13	Packag	ing and documentation				
P13.1*	Product Product	packaging material type(s): <i>Corrugated Carton</i> weight (kg): <i>0.378</i> packaging material type(s): <i>Polyethylene Cushions</i> weight (kg): <i>0.081</i> packaging material type(s): <i>Others</i> weight (kg): <i>0.230</i>				
P13.2*	Product	plastic packaging is free from PVC.		\boxtimes		
P13.3*		media for user and product documentation (tick box): nic 🔀, Paper 🔀, Other 🔲				
P13.4*	For pape	er user and product documentation, please specify contained percentage of post-consume (Japan only 70%)	er recycled			
P14		nal information (See Note B4)				
	informat knowled	: Supplier makes no representations, guarantees, assurances or warranties whether expre tion contained in this document. All information provided by supplier in this document is pr dge available at the time of completion, and supplier shall have no obligation to update suc d here is approximate and provided for informational purposes only. See a Lenovo Accoun tion.	ovided based h information	on supp The inf	olier's format	
P7.17		t does not contain free TBBPA in printed circuit boards(without components)>25g.				
P9	See En	ergy Star Qualified (insert appropriate Product type; i.e. Desktop, Notebook, etc.) fo ownloads.energystar.gov/bi/gplist/laptops_prod_list.xls_(insert appropriate web url		formati	ion:	

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 G405s	Logo
Model Number	20254;80AL	_
Issue Date	2013/6/9	lenovo
Additional information		

P7.1.1	Product environmental attributes		
(d)	year of manufactures		
(d)	year of manufacture:		2013
(e)	E TEC value (kWh) and capability adjustments applied when are disabled and if the system is tested with switchable graph display:		29.66
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adj enabled:	ustments applied when all discrete graphics car	ds (dGfx) are
	Category C Etec 32.31		
(g)	idle state power demand (Watts);		10.82
(h)	sleep mode power demand (Watts);		1.155
(i)	sleep mode with WOL enabled power demand (Watts) (where	enabled);	1.63
(j)	off mode power demand (Watts);		0.45
(k)	off mode with WOL enabled power demand (Watts) (where en	nabled);	0.47
(I)	internal power supply efficiency at 10 %, 20 %, 50 % and 100	% of rated output power (if applicable):	
	10% 20% 50% 100% Aver	age	
(m)	external power supply efficiency (if applicable):		
	10% 20% 50% 100% Aver	age ;	
	or level V		
(0)	the minimum number of loading cycles that the batteries can v	withstand (applies only to notebook computers):	500
(f)	test parameters for measurements: — test voltage in V and from the electricity supply system, — information and documentation used for electrical testing:		
	230V/50Hz		
(p-1)	the measurement methodology used to determine information efficiency:	ation mentioned in points (I) - internal PSU	
	Energy-star require	ement	
(p-2)	the measurement methodology used to determine informa efficiency:	tion mentioned in points (m) - external PSU	
	, NA		

Additio	onal infor	mation		
			The battery[ies] in this product cannot be easily replaced by users them	selves
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed and replaced by a user.	non-protessional
	1		ry Information:	
			230V/50Hz	
(z)	the e	electricity s	's for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of supply system, — information and documentation on the instrumentation, set-up and circuits ical testing:	
(-)	<u> </u>		Based on user manual	
(x)	user	informatio	on on how to enable the power management functionality:	
			Based on user manual	
(w)	infor	mation on	the energy-saving potential of power management functionality:	
(v)	the l e	ength of t	time before the display sleep mode is set to activate after user inactivity (in minutes):	10
(u)	pow	er mode t	time after a period of user inactivity in which the computer automatically reaches a that has a lower power demand requirement than sleep mode (in minutes):	N/A
.,	cond	lition which	h does not exceed the applicable power demand requirements for sleep mode (in minutes):	25
(t)	the d	luration o	of idle state condition before the computer automatically reaches sleep mode, or another	
	ott m	iode:	Based on user manual	
(S)			vents required to reach the mode where the equipment automatically changes to sleep and/or	
			Based on user manual	
(r)	desc	ription of I	how sleep and/or off mode was selected or programmed:	
			Based on user manual	
(q)	sequ	ence of st	teps for achieving a stable condition with respect to power demand::	
			Energy-star requirement	
(p-4)			ent methodology used to determine information mentioned in maximum, idle, sleep, off mode ned in Point P9.1 in the Product IT Eco Declaration:	
	Dalle		Energy-star requirement	
(p-3)	the i batte		nent methodology used to determine information mentioned in points (o) - loadingcycles	