

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 *	ThinkPad	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 *	www.pc.ibm.com/ww/lenovo/about/environment	
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 *	Notebook PC				
Commercial name *	ThinkPad W520				
Model number *	M/T: 4270,4276,4281,4282,4284,4249,4260				
Issue date *	2011, February 25				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information	ENERGY STAR® Qualified; EPEAT GOLD Rating*; GREENGUARD Certified				

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Quality	Quality Control		
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 *	ThinkPad W520		
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Product	luct 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)					
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.			\boxtimes		
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/environment.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, 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).	\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).					
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).			\boxtimes		
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		لليا			
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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Product	Product environmental attributes - Market requirements - Environmental conscious design				
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).		Ш	Ш	
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.				
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.			T	
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.			一百	
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	X	Ħ	Ħ	
	Product lifetime				
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives				
P7.8*	Upgrading can be done using commonly available tools	$\overline{\boxtimes}$		T	
P7.9.	Spare parts are available after end of production for: 5 years			$\overline{\Box}$	
P7.10	Service is available after end of production for: 5 years			一一	
	Material and substance requirements				
P7.11*	Product cover/housing material type:				
	Material type: Material type: Material type:				
	PC+ABS-FR(40)				
P7.12	GFRP:PA6-GF50FR(52+61) Electrical cable insulation materials of power cables are PVC free.	_		_	
		<u> </u>		井	
P7.13	Electrical cable insulation materials of signal cables are PVC free	Ц.		Щ.	
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		_ <u>_</u>		
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See		\boxtimes	Ш	
P7.16	Note B2)		_	_	
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: FR(40), FR(52+61)				
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: Brominated Epoxy Resin See P14	ш	ш	ш	
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. Provide a list of all used flame retardants including MSDS for each flame retardant. The list must contain				
	complete chemical name, CAS number and supplier.				
	1. Chemical name: , CAS #: , Supplier:				
	2. Chemical name: , CAS #: , Supplier:				
	3. Chemical name: , CAS #: , Supplier:				
	Alt. 2 Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:	\boxtimes	Ш	ш	
	FR(40), $FR(52+61)$				
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,	\boxtimes		\Box	
	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 0%.				
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.				
P7.22	Light sources are free from mercury	\boxtimes			
P8	Batteries			4	
P8.1*	Battery chemical composition: Lithium Ion/Lithium Manganese Dioxide			Щ.	
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.

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	roduct environmental attributes - Market requirements (continued) Requirement m					
Item						n.a.
P9 Energy consumption 9.1 For the product the following power levels or energy consumptions are reported:						
Energy mo	·	Power level at 100 V AC	<u> </u>	Power level at 230 V AC		
Peak (On-	max)	135/170 W	135/170 W	135/170 W	Full load	
Categor	y B (Optimus)					
Idle State	- WOL Enabled	14.07 W	14.01W	14.74W	Use for ENERGY STAR Registration(P _{idle})	
Sleep (S3)	- WOL Enabled	1.72 W	1.73 W	1.94 W	Use for ENERGY STAR Registration(P _{sleep})	
Sleep (S3)	- WOL Disabled	1.56 W	1.57 W	1.77 W	Reference	
Off (S5) - 1	WOL Enabled	0.75 W	0.76 W	0.90 W	Use for ENERGY STAR Registration(Poff)	
Off (S5) -	WOL Disabled	0.31 W	0.31 W	0.42 W	Use for EuP	
Categor	y B (Discrete)	-				
Idle State	- WOL Enabled	18.32 W	18.28 W	19.29 W	Use for ENERGY STAR Registration(Pidle)	
Sleep (S3)	- WOL Enabled	1.54 W	1.53 W	2.00 W	Use for ENERGY STAR Registration(P _{sleep})	
Sleep (S3)	- WOL Disabled	1.36 W	1.35 W	1.77W	Reference	
Off (S5) - 1	WOL Enabled	0.66 W	0.67 W	0.92 W	Use for ENERGY STAR Registration(Poff)	
Off (S5) -	WOL Disabled	0.29 W	0.30 W	0.42 W	Use for EuP	
EPS No-lo	ad bower supply /	W	0.32 W	0.37 W		
charger plu	ugged in the wall disconnected from					
P _{TEC} Typical En	ergy Consumption	W	W	W	(Workstation Levels) $P_{TEC} = 0.35 * P_{off} + 0.10 * P_{sleep} + 0.55 * P_{idle}$	
TEC Typical En	ergy Consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual En	ergy Consumption	42.4 kWh/year (B, Optimus) 53.0 kWh/year (B, Discrete)	42.3kWh/year (B, Optimus) 52.9 kWh/year (B, Discrete)	45.2 kWh/year (B, Optimus) 57.3 kWh/year (B, Discrete)	$E_{TEC} = (8760/1000) * (P_{off} * T_{off} + P_{sleep} *)$	
Display res	solution : 1366 x 7	768, 1600 x 900, 1920	0 x 1080 Megapixels			
Print Spee	d : In	nages per minute				
Default tim	e to enter energy sa	ave mode: 20 minute	es			
P9.2*	Information about	the energy save fund	tion is provided with	the product.		
P9.3*	ENERGY STAR®	s the energy requirent version: Version 5.0 VERGY STAR for Ex	dated July 1, 2009	Product category:	В	
P10	Emissions					
P10.1		- Declared according Mode description	to ISO 9296	Declared	Declared A-weighted	P1
F 10.1	Mode	wode description		A-weighted sound power	sound pressure level $L_{p{\rm Am}}$ (dB)	0.1
				level L_{WAd} (B)	Operator position Desktop Or Desk side	
		* HDD: Idle		* 3.1	24	
	Operation '	* HDD: Operating		* 4.0	36	
	Other mode		TOMA 74			
	Measured according	ng to: X ISO7779 L Other	ECMA-74 (only if not covere	ed by FCMA-74 with	L _{pAm} measurement distance m)	
P10.2	The product meets	s the acoustic noise r				

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Product 6	environmental attributes - Market requirements (continued)	Require	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:			\boxtimes		
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 :			\boxtimes		
	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: MPR-II(3 pin AC adapter only)					
P11	Consumable materials for printing products	<u> </u>	-			
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.			\boxtimes		
P12	Ergonomics for computing products					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.					
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.					
P13	Packaging and documentation					
P13.1*	Product packaging material type(s): Corrugated Cardboard weight (kg): 0.63					
	Product packaging material type(s): Recycled Polyethylene (RLDPE) weight (kg): 0.45					
P13.2*	Product packaging material type(s): Others(Plastic Bags) weight (kg): 0.03 Product plastic packaging is free from PVC.	\square	$\overline{}$	_		
P13.3*	1 1 0 0		Ш	₩		
P13.3"	Specify media for user and product documentation (tick box):					
P13.4*	Electronic , Paper , Other .					
	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0%.(Japan only 70%)					
P14	Additional information (See Note B4)					
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied	, regardi	ng the			
	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			on		
	provided here is approximate and provided for informational purposes only. See a Lenovo Account Representa			OH		
	information.					
P7.17	Product does not contain free TBBPA in printed circuit boards(without components)>25g.	•		, and the second		
P9	See ENERGY STAR Qualified Notebooks & Tablet Computers for the latest information:					
	http://downloads.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