

#### 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.

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Company name *	Lenovo			
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Additional information	The latest version of this document can be found at			
	http://www.lenovo.com/social_responsibility/us/en/datasheets_r	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 Z50-70				
Model number *	20354; 80E7				
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 contro such as organized by IT-Företagen (see www.itecodeclaration.org).		

Model number *	20354; 80E7 <b>Lenovo Z50-70</b>	20354; 80E7	
Issue date *	2015-01-13	Logo	lenovo
Product environ	mental attributes - Legal requirements		Requirement met

Item		Yes	No	n.a.
P1	Hazardous substances and preparations	100	110	n.a.
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.	$\boxtimes$		
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).	$\square$		
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.			$\square$
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/cm <sup>2</sup> /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.	$\square$		
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	$\square$		
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)	$\square$		
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).	$\square$		
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).	$\square$		
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).			$\square$
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			$\boxtimes$
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).	$\square$		
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 %.

Model nu	mber *	20354; 80E7 <b>Lenovo Z50-70</b> 20354; 80E7			
Issue date *		2015-01-13 Logo	leno	vo.	
			equire		
Item P6		tory to fill in. Additional information regarding each item may be found under P14. nt information	Yes	No	n.a.
P6.1*		on for recyclers/treatment facilities is available (see legal reference).			
P7	Design				
	Disasse	mbly, recycling			
P7.1*		t have to be treated separately are easily separable	$\square$		
P7.2*	Plastic m	aterials in covers/housing have no surface coating.		$\square$	
P7.3*		arts >100g consist of one material or of easily separable materials.	$\square$		
P7.4*	Plastic pa	arts >25g have material codes according to ISO 11469 referring ISO 1043.	$\boxtimes$		
P7.5	Plastic pa	arts are free from metal inlays or have inlays that can be removed with commonly available tools.	$\boxtimes$		
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).	$\square$		
	Product	lifetime			
P7.7*	Upgradin	g can be done e.g. with processor, memory, cards or drives	$\boxtimes$		
P7.8*	Upgradin	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 is	s available after end of production for: 5 years			
	Material	and substance requirements			
P7.11*		cover/housing material type:			
D7 40		type: PC+ABS-FR(40) Material type: Material type:			
P7.12		cable insulation materials of power cables are PVC free.	<u> </u>		
P7.13		cable insulation materials of signal cables are PVC free			Ц
P7.14		/housing plastic parts >25g are free from chlorine and bromine.			
P7.15	All printe Note B2)	d circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See			
P7.16	Marking:	tarded plastic parts >25g in covers / housings are marked according ISO 1043-4: <i>FR(40)</i>			
P7.17		I specifications of flame retardants in printed circuit boards >25g (without components): additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
		I specifications of flame retardants in printed circuit boards (without components) >25g according 3-4: Brominated Epoxy Resin See P14			
P7.18		etarded plastic parts >25g contain the following flame retardant substances/preparations in ations above 0.1%:			
	1. Chemi 2. Chemi 3. Chemi Alt. 2	ent: No legal limits exist, this is a market requirement. cal name: , CAS #: cal name: , CAS #: cal name: , CAS #: cal name: , CAS #:			
	FR(40)	I specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
P7.19	R40, R46	arts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, 5, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20		lastic parts' weight >25g, recycled material content is 2.7%.			
P7.21 P7.22		lastic parts' weight >25g, biobased material content is 0%.			
F1.22		rces are free from mercury y is used specify: Number of lamps: and max. mercury content per lamp: mg	$\boxtimes$		
P8	Batteries				
P8.1*		hemical composition: Lithium Ion/Lithium Manganese Dioxide			
P8.2	Batteries	meet the requirements of the following voluntary program/s: US RBRC			

Annex B of ECMA-370 4<sup>th</sup> edition, June 2009

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 \* 20354; 80E7Lenovo Z50-70 20354; 80E7 Issue date \* 2015-01-13 Logo Lenovo Product environmental attributes - Market requirements (continued) Requirement met

Product environmental attribution	ites - Market requ	irements (cont	inued)		Requirement me	
Item					Yes No	n.a.
P9 Energy consumption						
9.1 For the product the follo	wing power levels or	energy consumpt	tions are reporte	ed: See P14		
Energy mode *	Power level at <b>100</b> V AC	Power level at <b>115</b> V AC	Power level at 230 V AC	Reference / Standard for ene method *	ergy modes and tes	t 🗌
Peak (On-max)	65 W	65 W	65 W	Full load		
Category 11/2/3	1			L		
Short Idle State - WOL Enabled	8.950 W	9.010 W	8.876 W	Use for ENERGY STAR V6	registration (P <sub>idle</sub> )	
Long Idle State - WOL Enabled	6.422 W	5.960 W	6.780 W	Use for ENERGY STAR V6	registration (P <sub>idle</sub> )	
Sleep (S3) - WOL Enabled	0.662 W	0.547 W	0.606 W	Use for ENERGY STAR V6	registration(P <sub>sleep</sub> )	
Sleep (S3) - WOL Disabled	0.662 W	0.547 W	0.606 W	Reference	• • • • • •	
Off (S5) - WOL Enabled	0.232 W	0.258 W	0.303 W	Use for ENERGY STAR V6	registration(Port)	
Off (S5) - WOL Disabled	0.232 W	0.258 W	0.303 W	Use for EuP		┼岩
Category D 1/2	0.202 11	0.200 11	0.000 11			
Short Idle State - WOL Enabled	NA W	NA W	NA W	Use for ENERGY STAR V6	registration (P )	
Long Idle State - WOL Enabled	NAW	NA W	NA W	Use for ENERGY STAR V6		┼┍┑
Sleep (S3) - WOL Enabled	NA W	NA W	NA W	Use for ENERGY STAR V6	registration (P <sub>sleep</sub> )	
Sleep (S3) - WOL Disabled	NA W	NA W	NA W	Reference		
Off (S5) - WOL Enabled	NA W	NA W	NA W	Use for ENERGY STAR V6	registration(P <sub>off</sub> )	
Off (S5) - WOL Disabled	NA W	NA W	NA W	Use for EuP		
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	0.105 W	0.107 W	0.111 W			
PTEC * Typical Energy Consumption	W	W	W			
TEC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week			$\boxtimes$
ETEC * Annual Energy Consumption	31.93 kWh/year	<b>31.10</b> kWh/year	<b>31.66</b> kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0)$ + $P_{short idle} \times 0.3$ + $P_{long idle} \times 0$		
						_
Display resolution* : 1280*800 Meg		WOL Enabled; P <sub>slee</sub>	<sub>р</sub> : Sieep моае(S3)	) - WOL Enabled; P <sub>idle</sub> : Idle State	- WOL Enabled	
	es per minute					
Default time to enter energy save m P9.2* Information about the er		a provided with the	product			
		-	-	10.		
P9.3* The product meets the e ENERGY STAR® version Others specify: <i>Energy</i>	on: Version 6.0 Tie	er: Produ	uct category: 11			
P10 Emissions			<u></u> , entona			
Noise emission – Decl		O 9296				
P10.1 Mode Mode	description		Declared A-weighted			
			sound powe	er	1	
			level $L_{WAd}$	Desktop 🔀	Bystander positions only if product is no operator attended	] t
Idle * HL	DD:Idle		* 2.51	19.2		$\square$
	DD: Operating		* 2.61	20.2		ㅓ⊢
Other mode				Energy Star for Extern	al Power Supplies	
Eligibility Criteria Version 2						
Measured according to:		:MA-74		Eliaibility Criteri	a Version 2	-
Measured according to:		CMA-74 (only if not covered	d by ECMA-74 w	ith L <sub>pAm</sub> measurement distance		

Model n	umber *	2035	4; 80E7 <b>L</b>	enovo Z	Z50-70	20354;	80E7			
Issue da	nte *	2015-01-					Logo	leno	<b>VO</b> .	
Produc	t environi	nental at	tributes - Mark	et requirements	(continued)			Require	ement	t met
Item								Yes	No	n.a.
	Chemic	al emissio	ns from printing	g products						
P10.3*	Test per	formed acc	cording to ECMA	-328 (ISO/IEC 28360	D) standard 🔲, otl	her specify:				$\boxtimes$
P10.4	Typical	emission ra	ate (print phase) i	s (mg/h):						$\square$
		Dust	Ozone	Styrene	Benzene	TVOC				
P10.5	Chemic	al emission	requirements of	the following volunta	ary program/s	are met fo	r:			$\boxtimes$
	I	Dust 🗌	Ozone	Styrene	Benzen	e 🗌	TVOC 🗌			
	Electro	magnetic e	emissions							
P10.6		er display r ı/s: <b>MPR-II</b>		ment for low frequer	ncy electromagneti	c fields of the fo	ollowing volunt	tary 🔀		
P11			erials for printing							
P11.1*	A Safety	/ Data She	et (SDS) is availa	able for the ink/toner	preparation, even	if not legally rec	quired (see P4	1.3).		$\boxtimes$
P11.2*	Paper o EN1228		post-consumer re	ecycled fibers can l	be used, provided	that it meets	the requirement	ents of		$\boxtimes$
P11.3*	2-sided	(duplex) pr	inting/copying is	an integrated produc	ct function.					$\square$
P12	Ergono	mics for c	omputing produ	icts						
P12.1*	The disp	olay meets	the ergonomic re	equirements of ISO 9	241-307 for visual	display technol	ogies.	$\boxtimes$		
P12.2*	The phy	sical input	device meets the	requirements of ISC	O 9995 and ISO 92	241-410.				
P13	Packag	ing and do	cumentation	•						
P13.1*	Product	packaging	<b>JI</b> ( )	Corrugated Cartor Polyethylene Cush Others weig	0 (0)	<b>0.359</b> ight (kg): <b>0.106</b>				
P13.2*			kaging is free fro					$\boxtimes$		
P13.3*			user and product	documentation (tick	box):					
P13.4*	For pap fiber: 0		l product docume	entation, please spec	cify contained perce	entage of post-o	consumer recy	vcled		

	· · · · · · · · · · · · · · · · · · ·
	fiber: 0%
P14	Additional information (See Note B4)
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, regarding the information contained in this document. All information provided by supplier in this document is provided based on supplier's knowledge available at the time of completion, and supplier shall have no obligation to update such information. The information provided here is approximate and provided for informational purposes only. See a Lenovo Account Representative for more information.
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

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 Z50-70	Logo
Model Number	80E7; 20354	
Issue Date	2015-01-13	lenovo
Additional information		

P7.1.1 F	Product environmental attributes	
(d)	year of manufacture: 2014	
(e)	<b>E TEC value</b> (kWh) per ErP Lot 3 Category and capability adjustments applied when <b>all discrete graphics care disabled</b> and if the system is tested with switchable graphics mode with UMA driving the display:	ds (dGfx) are
	Category (according to ErP Lot 3): NA Etec: NA	
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics card enabled:	ls (dGfx) are
	Category (according to ErP Lot 3): <i>B</i> Etec: 19.89	
(g)	idle state power demand (Watts);	6.78
(h)	sleep mode power demand (Watts);	0.75
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	0.76
(j)	off mode power demand (Watts);	0.27
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.29
(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%,87.58%.87.60%,88.32% 65W:89.18%,89.04%,89.92%,89.92%,89.18%	
(0)	*internal note: show values for all available external power supplies 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:	
	NA	
(p-2)	the measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:	
	Energy-star requirement	

(p-3) the measu batteries:	irement methodolog		to determine information mentioned in points (o) – loadingcycles		
IEC 61960 measurement methodology					
	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 requirement					
(q) sequence of steps for achieving a stable condition with respect to power demand::					
Based on user manual					
(r) description	description of how sleep and/or off mode was selected or programmed:				
			Based on user manual		
(s) sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:					
			Based on user manual		
(t) the <b>duration of idle state condition before the computer automatically reaches sleep mode</b> , 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	<ul> <li>the length of time before the display sleep mode is set to activate after user inactivity (in minutes):</li> <li>10</li> </ul>				
(w) information on the energy-saving potential of power management functionality:					
Based on user manual					
(x) user information on how to enable the power management functionality:					
Based on 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 %					
Addition Notebook Battery Information:					
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed	d and replaced	
(Battery <b>not</b> user	(Battery user		by a non-professional user.	•	
replaceable)	replaceable)		The battery[ies] in this product cannot be easily replace themselves	d by users	
Additional informatio	n				

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