

ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo
Company name *	Lenovo	
Contact information * e-mail address	Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com	Lenovo
Internet site *	www.lenovo.com	
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 *	NB				
Commercial name *	Lenovo E41-25				
Model number *	81FS				
Issue date *	2017/11/20				
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.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template: P4.1 – P4.3 Consumable materials

P9.1 TEC and Print speed

P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products.

Model number *		81FS Logo			
Issue dat	e *	2017/11/20	Len	OVO	D
Product	environ	mental attributes - Legal requirements	Require	emen	t met
Item			Yes	No	n.a.
P1		ous substances and preparations			
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and $^{NO}TEB^1$)	\square		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.	\square		
P1.3*	Products hydrobro trichloroo concentr				
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated (I (PCT) in preparations (see legal reference).			
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the nation of the training at least 48% per mass of chlorine in the SCCP (see legal reference).	the 🔀		
P1.6*	Parts wit (see lega	th direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/we al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	ek 🔀		
P1.7*		Article 33 information about substances in articles is available at (add URL or mail contact):			
P2	Batterie	s			
P2.1*	If the pro	oduct contains a battery or an accumulator, the battery/accumulator is labeled with the disposal Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*		s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See leg	jal 🔀		
P2.3*	Batteries and accumulators are readily removable. (See legal reference)				
P3	Conform	nity verification & Eco design (ErP)			
P3.1*	The proc	duct is CE-marked to show conformance with applicable legal requirements (see legal reference)			
		laration of Conformity can be requested at (add link or e-mail address):			
P3.2*		Juct complies with the Eco design requirements for energy-related products, al reference).	\square		
	Required	d information is; given in item P15 or added to this document, available at (add URL):			
P5	Product	packaging			
P5.1*	Packagi	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium a ent chromium by weight of these together.	and 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the materia e legal reference).	l(s)		
P5.3*	The pro Protocol	duct packaging material is free from ozone depleting substances as specified in the Montr (see legal reference). rt: Legal reference has no maximum concentration values.	eal 🔀		
P6		nt information			
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).	\square		

Model number *		81FS	Logo					
Issue dat	te *	2017/11/20	-	Len	ovo			
Product		mental attributes - Market requirements (See General NOTE GN onmental conscious design	below)	Require	ment	met		
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.		
P7	Design	mbly, recycling						
P7.1*		at have to be treated separately are easily separable		\square				
P7.2*	Plastic m	naterials in covers/housing have no surface coating.			Ē			
P7.3*		arts > 100 g consist of one material or of easily separable materials.			Ħ	Ħ		
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			Ħ	⊢⊢		
P7.5		Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.						
P7.6*		s. 🔀	⊢⊢	-#-				
	Product	re easily separable. (This requirement does not apply to safety/regulatory labels).						
P7.7*		ng can be done e.g. with processor, memory, cards or drives						
P7.8*		ng can be done using commonly available tools			H	-#-		
P7.9		arts are available after end of production for: 5 years				-#-		
P7.10		s available after end of production for: 5 years						
		and substance requirements						
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):						
		type: plastics Material type: Material	al type:					
P7.12	Insulatio	\boxtimes						
P7.13	Insulatio	\square						
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.							
P7.15	Printed	circuit boards, PCBs (without components) are low halogen: all PCBs > as defined in IEC 61249-2-21. (See 1NOTE B2)	25 g 🗌 are	low	\square			
P7.16	Flame re	<pre>tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: >PC+ABS-TD15FR(40)<</pre>		\boxtimes				
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c PA (additive), ☐TBBPA (reactive) (See ^{NO} TEB3), ⊠Other: <i>TBBPA</i> , CAS #: 79-		\boxtimes				
		nemical specifications of flame retardants in printed circuit boards (without compon- g ISO 1043-4: <i>FR(16)</i>	ents) > 25 g	\square				
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: confidential,, CAS #: confidential, (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "							
	<u>Alt. 2: C</u> f TD15FR	3S- 🔀						
P7.19	assigned	parts > 25 g, flame retardant substances/preparations above 0,1% are used which I the following Risk phrases; and Hazard statements:	have been					
P7.20*	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5) Postconsumer recycled plastic material content is used in the product (See Note ^{B6}): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is 5.9 %. or b) The weight of recycled material is g.							

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	81FS				Logo		
Issue date *	2017/11/	20				Lenov	
Product environm	nental at	tributes - Market r	equirements (conti	nued)	•	Requirem	ent met
Item						Yes No	
Material	and subs	tance requirements	(continued)				
P7.21* Biobase	d plastic m	aterial content is used	I in the product (See N	OTE B7):			
			s below shall be answe				
		c parts' weight > 25 g by weight) is %		material content (calcul	lated as a percent	tage	
or	otal plastic	by weight) is 70).				
		the biobased plastic r					
		ree from mercury, i.e. specify: Number of lan	less than 0,1 mg/lamp.	um mercury content pe	r lamp: mg		
P8 Batterie					namp. mg		
P8.1* Battery of	chemical co	omposition: <i>Li-ion Po</i>	lymer				
		tion (See NOTE B8)					
P9.1 For the p Energy mode *	product the	Power level at	s or energy consumption Power level at	ons are reported: Power level at	Reference/Stan	dard for energy	/
		100 V AC	115 V AC	230 V AC	modes and test		
Peak (On-max)		45 W	45 W	45 W	Full load		
Category I1							
Short Idle State - W	0	6.978 W	6.881 W	6.511W	Reference		
Enabled	OL	0.978 VV	0.007 VV	0.5777	Reference		
Long Idle State - W		4.11 W	3.84 W	3.8 W	Reference		
Enabled	UL		5.04 11	5.0 11	Nererence		
Sleep (S3) - WOL E		0.576 W	0.541 W	0.543 W	Reference		
Sleep (S3) - WOL D	isabled	0.536 W	0.501 W	0.501 W	Reference		
Off (S5) - WOL Ena	bled	0.335 W	0.301 W	0.301 W	Reference		
Off (S5) - WOL Disa	bled	0.334 W	0.300 W	0.300 W	Reference		
• •							
Category I2							
Short Idle State - W Enabled	/OL	6.258W	6.187 W	6.708 W	Reference		
Long Idle State - W Enabled	OL	3.663 W	3.537 W	3.737 W	Reference		
Lindbled							
Sleep (S3) - WOL E	nabled	0.495 W	0.502 W	0.564 W	Reference		
Sleep (S3) - WOL D	isabled	0.46 W	0.466 W	0.529 W	Reference		
Off (S5) - WOL Ena	bled	0.282 W	0.286 W	0.338 W	Reference		
Off (S5) - WOL Disa				0.338 W			
	INIEU	0.281 W	0.285 W		Reference		
EPS No-load (External power supply / charger	nlugged in the	W	W	W			
wall outlet but disconnected from	the product.)	10/	14/	14/			
PTEC * Typical Energy Cons	sumption	W	W	W			
ETEC *		21.79 kWh/year	21.5223 kWh/year	23.372 kWh/year	T		
Annual Energy Cons		ov Level (International	Efficiency Marking Pro				
Display resolution *				10001) . V 1			<u> </u>
Default time to enter			tes				<u> </u>
			on is provided with the	product.	<u> </u>		
		lass (monitors only):		F			
P10 Emissio		(, , , , , , , , , , , , , , , , , , ,					
		Declared according to	ISO 9296 (See NOTE	E B9)			

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, L _{WA,c} (B)				
	ldle	* Idle	* 2.7				
	Operation	* CPU Operating	* 4.2				
	Other mode						
	Measured according to: 🔀 ISO 7779 🗌 ECMA-74						
	Other (only if not covered by ECMA-74)						

Model nu	mber *	81FS				1	Logo			
Issue date) *	2017/11/20						Leno	VO	
Product	environr	nental attribut	es - Market requi	rements (con	tinued)			Require		met
ltem								Yes	No	n.a.
		nagnetic emissi								
P10.4	program	(s):	he requirement for I	ow frequency el	ectromagnetic fields	s of the follow	wing voluntary			
P12		nics for comput								
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.									
P12.2*	The phys	sical input device	meets the requirem	ents of ISO 999	5 and ISO 9241-410	Э.		\boxtimes		
P13	Packagi	ng and docume	ntation							
P13.1*	Product	packaging materi	al type(s): <i>PAPER</i> al type(s): <i>EPE</i> al type(s): <i>LDPE</i> +	weight (kg weight (kg PP weight (kg): 68.8g					
P13.2*	Product	plastic primary pa	ackaging is free from					\boxtimes		
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-									
P13.4*	Specify r		d product document	tation (tick box):						
P13.5	Product Product	packaging materi packaging materi	al type(s): PAPER al type(s): EPE al type(s): LDPE + ackaging is free from): 68.8g			\boxtimes		
	consume	er recovered fiber	ugated fiberboard p content: 80 % d product document	0 0 1		ercentage c	of minimum po			
	Elect	ronic, 🔀 Paper,	Other							_
P14	Volunta	ry programs								
P14.1	The proc	luct meets the re	quirements of the fo	llowing voluntar	y program(s):					
	ENERG Eco-labe Eco-labe		Criteria version Criteria version Criteria version	:	Date: 2017/12/13 Date: Date:	Product ca Product ca Product ca		,NBI2		
P15		al information (-						
P9			specific configura	tion mav varv:	description of the	tested prod	luct configura	ation:		
			, , , , , , , , , , , , , , , , , , , ,	,			J			_
										-

Annex B1 of ECMA-370 5th edition (Lenovo) 2015-04-08

NOTE B10 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 B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

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 E41-25	Logo
Model Number	81FS	
Issue Date	2017/11/20	Lenovo.
Additional information		

P7.1.1	Product environmental attributes				
(d)	year of manufacture:				
(e)	Etec value (kWh) per ErP Lot 3 Catego				cards (dGfx) are
	disabled and if the system is tested with	switchable graphics n	node with UMA driving	the display.	
(f)	Etec value (kWh) per ErP Lot 3 Categor	y and capability adjust	ments applied when a	II discrete graphics o	cards (dGfx) are
	enable				
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)
	Memory over base [GB]	16			
lents sting	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
ability a	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	# <u>:</u> (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)				
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	12.64			
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);	I			3.99
(h)	Sleep mode power demand (Watts);				0.320
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled):		0.320
(j)	Off mode power demand (Watts);				
(k)	Off mode with WOL enabled power dem	and (Matta) (where an	ablad);		0.528
		. , .		· · //f · · · · P · · [] · ·)	0.528
(I)	Internal power supply efficiency at 10 %,			er (if applicable):	
	10% 20% 50%	100% Avera	ge		
(m)	external power supply efficiency (if applied	cable)*:			
	Average active efficiency: 45W:89.239 *internal note: show values for all available external po		32%;87.58%		
(0)	Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):				
(p-1)	Measurement methodology used to dete	rmine information men NA	tioned in points (I) – ir	ternal PSU efficiency:	

Measurement method	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EPA "Test Method for Calculating the Energy Efficiency of Single-voltage External AC-DC and AC-AC Power Supplies" dated August 11, 2004					
Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: IEC 61960 measurement methodology						
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: IEC 62623/IEC EN50564:2011 measurement methodology						
Sequence of steps for achieving a stable condition with respect to power demand:: IEC 62623/ IEC EN50564:2011 measurement methodology						
Description of how sleep and/or off mode was selected or programmed: Energy-star requirement						
Sequence of events r off mode:		tomatically changes to sleep and/or				
			30			
Length of time after	a period of user inactivity in which the compute	r automatically reaches a power	NA			
Length of time befo	re the display sleep mode is set to activate after	user inactivity (in minutes):	10			
Information on the en	ergy-saving potential of power management function Based on user manual	nality:				
user information on h	ow to enable the power management functionality: Based on user manual					
	em, — information and documentation on the instru	mentation, set-up and circuits used				
Notebook Battery		~ 2 /0				
	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a			
	The battery[ies] in this product cannot be easily replaced by users themselves. $^{\mbox{\tiny 1)}}$					
ouilt-in Battery						
detachable Battery						
kup Battery						
l information		1				
ara[ите] δатерия[и] в този г le este producto no pueden - rie/baterií v tomto výrobku by likke uden videre udskifte ba Akkus dieses Produkts kann saa selle toote akut/akusid is ;c] στο προϊόν αυτό δεν μπο c(s présente(s) dans ce prod ože lako zamijeniti Bateriju s batterie in questo prodotto n revar nomainīt šā ražojuma -	ιροχίγκτ με мοжέ да се замени[ят] лесно от самите потребите ser sustituidas fácilmente por los propios usuarios. • neměli provádět sami uživatelé. tteriet/batterierne i dette produkt. /können nicht ohne weiteres vom Benutzer selbst ausgetauscht e hõlpsasti asendada. soúv va αντικατασταθούν εύκολα από τους ίδιους τους χρήστες uit ne peuvent être facilement remplacée(s) par les utilisateurs e am u ovom proizvodu. on può/possono essere facilmente sostituita/e dall'utente. akumulatoru(-us).	werden.				
	Sequence of steps fo Description of how sle Sequence of events r off mode: Duration of idle stat condition which does Length of time after mode that has a low Length of time befor Information on the en user information on the en user information on the en electricity supply syst for electrical testing: Notebook Battery built-in Battery detachable Battery kup Battery linformation	IEC 62623/ IEC EN50564:2011 measurement in Sequence of steps for achieving a stable condition with respect to power IEC 62623/ IEC EN50564:2011 measurement in Description of how sleep and/or off mode was selected or programmed: Energy-star requirement Sequence of events required to reach the mode where the equipment au off mode: Energy-star requirement Duration of idle state condition before the computer automatically recondition which does not exceed the applicable power demand requirement than sleep mode (in that has a lower power demand requirement than sleep mode (in that has a lower power demand requirement than sleep mode (in the before the display sleep mode is set to activate after information on the energy-saving potential of power management functionality: Based on user manual user information on how to enable the power management functionality: Based on user manual user information on how to enable the power management functionality: Based on user manual User replaceable The battery[ies] not user replaceable The battery[ies] in this product cannot be easily replaced by users themselves. 1) puilt-in Battery Information Sequence on pougeting points user replaceable The battery[ies] in this product cannot be easily replaced by users themselves. 1) puilt-in Battery Information	IEC 62623/IEC EN50564:2011 measurement methodology Sequence of steps for achieving a stable condition with respect to power demand:: IEC 62623/IEC EN50564:2011 measurement methodology Description of how sleep and/or off mode was selected or programmed: Energy-star requirement Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: Duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): 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): Length of time after a period of user inactivity in which are inactivity (in minutes): Length of time before the display sleep mode is set to activate after automatically reaches a power mode (in minutes): Length of time before the display sleep mode is set to activate after automatically reaches a power mode is activate after automatically: Based on user manual user information on how to enable the power management functionality: Based on user manual 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 beattery [inc] in this product cannot be easily replaceable <t< td=""></t<>			

A termek akkumulatoraruakkumulatorait a feinasznaio nem tudja egyedul egyszerűen kicsereini. II-batterijf (fan il-prodott ma tistak/jistjňux tig/jigi osotiwita/i mill-utenti stess. Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv. De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar. Użytkownik nie może sam w łatwy sposób wymienić baterii w tym produkcie. A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores. Bateria (bateriile) din acest produs nu poate (pot) fi uşor înlocuită (înlocuite) de utilizatorii înșiși. Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tămân tuotteen akku [akut] ei[văt] ole helposti käyttäjän vaihdettavissa. Det ăr inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.