



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 *	Lenovo Global Environmental Affairs	1	
e-mail address	Alvin L Carter		Lenovo
	alcarter@lenovo.com		
Internet site *	https://www.lenovo.com/us/en/sustainability-resources/		
Additional information	The latest version of this document can be found at:		
	http://www.lenovo.com/ecodeclaration		

	based on product specification or test results based obtained from sample testing), that the product nts given in this declaration.
Type of product *	Portable Computer Tablet
Commercial name *	Lenovo Tab M9 (All Models)
Model number *	ZAC3,ZAC4,ZAC5,ZAC6
Issue date *	2022.12.16
Intended market *	☐ Global ☑ Europe ☑ Asia, Pacific & Japan ☐ Americas ☐ Other
Additional information	Wifi and LTE vocie product

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 *	ZAC5,ZAC6	Lenovo
Issue date *	2022.12.16	Lei Iovo.

Product	environmental attributes - Legal requirements	Require	men	t met
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\boxtimes		
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-	\boxtimes		
	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).			
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above $0.5 \mu g/cm^2/weel$ (see legal reference).	(<u> </u>		
	Comment: Max limit in legal reference when tested according to EN1811:2011-5.			
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): https://www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure			
P2	Batteries	•	•	
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See lega reference)	I 🔀		
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	\boxtimes		
P3 P3.1*	Conformity verification & Eco design (ErP)	•	•	
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference).	\boxtimes		
	The Declaration of Conformity can be requested at (add link or e-mail address): https://www.lenovo.com/us/en/compliance/eu-doc for EU;			
	https://www.lenovo.com/us/en/compliance/uk-doc for UK			
P3.2*	The product complies with the Eco design requirements for energy-related products, (see legal reference).	\boxtimes		
	Required information is; given in item P15 or added to this document,	\boxtimes		
	available at (add URL):			
	https://www.lenovo.com/us/en/compliance/eco-declaration	·		
P5	Product packaging		_	
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium ar hexavalent chromium by weight of these together.		<u>Ц</u>	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material (used (see legal reference).	,		
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protoc (see legal reference).	ol 🔀		
	Comment: Legal reference has no maximum concentration values.			
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes		

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	ZAC5,ZAC6	Logo	Lend		
Issue date *	2022.12.16		Len		тн
Product enviror	mental attributes - Market requirements (See General NOTE GN	below)			
- Envir	onmental conscious design		Requirer	nent	met
	atory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7 Design	Disassembly, recycling				

Product environmental attributes - Market requirements (See General NOTE GN below)						
		Require	ment	met		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.		
P7	Design, Disassembly, recycling		_			
P7.1*	Parts that have to be treated separately are easily separable		<u>Ц</u>			
P7.2*	Plastic materials in covers/housing have no surface coating.		\boxtimes			
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.			\boxtimes		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\boxtimes				
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes				
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes				
	Product lifetime					
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		\boxtimes			
P7.8*	Upgrading can be done using commonly available tools		\boxtimes			
P7.9	Spare parts are available after end of production for: 1 years					
P7.10	Service is available after end of production for: 1 years					
	Material and substance requirements		•			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):					
	Material type: PC+10%GF Material type: PC+20%GF Material type: AL5252					
P7.12	Insulation materials of external electrical cables are PVC free.	\boxtimes				
P7.13	Insulation materials of internal electrical cables are PVC free.	\boxtimes				
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1%		\boxtimes			
	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 > 25 g are low halogen	\square	П			
	as defined in IEC 61249-2-21. (See 1NOTE B2)					
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:	\boxtimes				
	Marking: >PC-GF20FR40<					
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):					
	TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: DOPO , CAS #: 35948-25-5	\boxtimes	Ш	ш		
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g					
	according ISO 1043-4:		Ш	\boxtimes		
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: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: "					
	3. Chemical name: , CAS #: "					
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: <i>FR40</i>	\square				
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	-	∺	\vdash		
17.19	assigned the following Risk phrases; and Hazard statements:		Ш			
	The source(s) for these classifications is/are found at (add URL(s)): (See note B5)					
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):	\boxtimes				
	If VEC, at least one of the true oftennetings helpingshell be appropried.	_				
	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 4.17% .					
	or					
	b) The weight of recycled material is 1.72 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 *	ZAC5,ZAC6	Logo	Len	01/6	
Issue date *	2022.12.16		Len		TH
Product environn	nental attributes - Market requirements (continued)		Requir	emen	t met
Item			Yes	No	n.a.

		stance requirements				
P7.21*	Biobased plastic m	naterial content is used	I in the product (See NO	OTE B7):		
			s below shall be answe			
	 a) Of total plastic b 		the biobased plastic m	aterial content (calculat	ied as a percentage of	
	or	y weight) is 70.				
		f the biobased plastic r	material is g.			
P7.22*			less than 0,1 mg/lamp.			
		specify: Number of lar	nps: and maximi	um mercury content pe	r lamp: mg	
P8	Batteries	omnosition: Li ion Do	humar			
P8.1*		composition: Li-ion Po	iymer			
P9		tion (See NOTE B8)	s or energy consumption	ana ara ranartad:		
Energy mo		Power level at	Power level at	Power level at	Reference/Standard for energy	$\overline{}$
Lifelgy ino	de	100 V AC	115 V AC	230 V AC	modes and test method *	Ш
Peak (On-	max)	9.45 W	9.45 W	9.45 W	Full load	
Cotonor						
Categor	<u>y2</u>					
Short Idle	State - WOL	1.6 W	1.58 W	1.63 W	ENERGY STAR Computers V8	
Enabled					(P _{idle})	
Long Idle	State - WOL	0.21 W	0.21 W	0.25 W	ENERGY STAR Computers V8	
Enabled					(P _{idle})	
Sleep (S3)	- WOL Disabled	0.21 W	0.21 W	0.25 W	ENERGY STAR Computers V8	
Off (S5) - I	WOL Disabled	0.22 W	0.22 W	0.25 W	ENERGY STAR Computers V8	
EPS No-lo	ad	0.0246 W	0.039 W	0.051 W		
(External power s	supply / charger plugged in the connected from the product.)					
ETEC *	connected from the product.)	5.5 W	5.44 W	5.82 W	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$	\Box
Annual En	ergy Consumption				+ P _{sleep} x 0.35 + P _{long_Idle} x 0.10+	
					P _{short_Idle} x 0.30)	
External D	ower Cupply Efficien		DL Enabled; P _{sleep} : Sleep Efficiency Marking Pro		ed; P _{idle} : Idle State - WOL Enabled	_
		• •	Elliciency Marking Pro	olocoi) . VI		
	solution * : 1.072 me					
		ive mode: 0.5 minutes				
P9.2*			on is provided with the	product.	<u> </u>	
P9.3	Energy efficiency	class (monitors only):				\boxtimes
P10	Emissions					
D40.4			ISO 9296 (See NOTE		t Ai shta d ad aa laval I	(D)
P10.1	Mode N	Mode description		*	t A-weighted sound power level, $L_{WA,c}$	
				*		
	Operation *	hoolored A weighted a	d proceure level (dB) :	, .		<u> </u>
			d pressure level (dB) $L_{p m Am}$		sition desktop – idle)	
	Other mode	Peclared A-weighted soun	d pressure level (dB) $L_{p m Am}$	(operator pos	sition desktop – operating)	
	Measured according	ng to: 🔲 ISO 7779 🗌	-			-
		Other	(only if not covered by	ECMA-74)		

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

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

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

Model num	ber *	ZAC5,ZAC6				Logo	Lenc	WO	
Issue date	*	2022.12.16					Lenc	, V O.	тм
Product e	nvironn	nental attributes	- Market requirements	(continued)			Require	ment	met
Item			-				Yes	No	n.a.
	Electron	nagnetic emission	s						
	Compute program(requirement for low frequer	ncy electromagnetic field	ds of the foll	owing voluntar	у		
P12		nics for computing							
P12.1*	The disp	lay meets the ergor	nomic requirements of ISO 9	241-307 for visual displ	ay technolo	gies.	\boxtimes		
P12.2*	The phys	sical input device m	eets the requirements of ISC	O 9995 and ISO 9241-4	10.		\boxtimes		
P13		ng and documenta							
P13.1*	Product		type(s): <i>paper(manual)</i> wei	ht (kg): 0.2154 ght (kg): 0.009 ht (kg): 0.007					
P13.2*	Product p	plastic primary pack	aging is free from PVC.				\boxtimes		
P13.3*	For prod	uct primary corrug	ated fiberboard packaging, ontent: %	specify the contained	percentage	of minimum p	oost-		
P13.4*		nedia for user and r onic, ⊠Paper, ☐	oroduct documentation (tick Other	box):					
P13.5	Ùser and		em if paper documentation ation on paper media is chlo						
	Elementa	hlorine-free al chlorine-free ed chlorine-free							
P14	Voluntar	ry programs							
P14.1	The prod	luct meets the requi	rements of the following vol	untary program(s):					
	ENERGY Eco-labe Eco-labe		Criteria version: 8.0 Criteria version: Criteria version:	Date: 2020-4 Date: Date:	Product of Product of Product of				
P15		al information (Se							
P9			ecific configuration may v						
	the information	r.n., r., r., r., r., r., r., r., r., r., r	representations, guarante in this document. All infor lable at the time of comple on provided here is appro or more information.	rmation provided by section, and supplier sha	upplier in ti all have no	his document obligation to t	is provided update such	based	lon
P9			Notebooks & Tablet Comp //index.cfm?fuseaction=fir			o&pgw_code=	:CO		

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 Tab M9	Logo	
Model Number	ZAC5,ZAC6		Longyo
Issue Date	2022.12.16		Lenovo.
Additional information	Wifi and LTE voice product		·

(d)	Year of manufacture:				2023
e) f)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with Etec value (kWh) per ErP Lot 3 Catego enable	n switchable graphics r	node with UMA driving	g the display.	, ,
		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]	4	, ,	, , , , , , , , , , , , , , , , , , ,	,
capability adjustments applied during testing	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capa	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	No			
sults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	5.89			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
g)	Idle state power demand (Watts);		l	l	1.59
h)	Sleep mode power demand (Watts);				0.36
i)	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);		
j)	Off mode power demand (Watts);				0.26
k)	Off mode with WOL enabled power dem	nand (Watts) (where en	abled);		
(I)	Internal power supply efficiency at 10 %	, 20 %, 50 % and 100	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	age		
m)	External power supply efficiency (if appl	icable)*:			
	Average active efficiency: 82.23%				
	*internal note: show values for all available external p	ower supplies			
(o)	Minimum number of loading cycles that	the batteries can withs	tand (applies only to n	otebook computers):	800cls , ≥70% o capacity
(p-1)	Measurement methodology used to dete	ermine information mer <i>NA</i>	ntioned in points (I) – i	nternal PSU efficiency	:
p-2)	Measurement methodology used to dete	ermine information mer	ntioned in points (m) –	external PSU efficience	CV.

(p-3) Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: 0.5C Charge/Discharge				
	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:			
EN 6	2623:2013 Desktop and notebook computers - Me	asurement of energy		
(q) Sequence of steps for achieving a stable condition with respect to power demand::				
EN 6	2623:2013 Desktop and notebook computers - Me	asurement of energy		
(r) Description of how sleep and/or off mode was selected or programmed:				
refer to power management, sleep mode: ACPI system level G1/S3 (suspend to RAM) state; off mode: ACPI system level G2/S5 ('soft off') state				
(s) Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:				
refer to power management, 0.5mins automatically reaches sleep mode				
(t) 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):				
(u) 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):				
(v) Length of time before the display sleep mode is set to activate after user inactivity (in minutes): 1				
(w) Information on the energy-saving potential of power management functionality: refer to user manual				
(x) User information on how to enable the power management functionality: refer to 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:				
230V50HZ-2%-Edition 2.0, 2011-01, Section 4, IEC62301				
Additional Notebook Batte	rv Information:			
	Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a	
	The battery[ies] in this product cannot be easily replaced by users themselves. 1)			
Internal/built-in Battery				
External/detachable Battery				
Bios Backup Battery				
Other:				
Additional information				
)				

The battery[ies] in this product cannot be easily replaced by users themselves.

Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.

Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé. Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden.

Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada.

rasulajau ei saa seile toule akutarkusi ise nioipsasii aseinduda. Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes.

Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu. La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente.

Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us).

Sio gaminio baterijos [bateriju] pats vartotojas negali lengvai pakeisti. A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni.

II-batterija/batteriji f'dan iI-prodott ma tistax/jistgħux tiġi/jiġu sostitwita/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.

Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ.

Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa.

Det är inte enkelt för kunden att själv byta ut batteriet/batterierna.

Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.