



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		<u> </u>
Contact information * e-mail address	Lenovo Global Environmental Affairs Alvin L Carter alcarter@lenovo.com		Lenovo
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	.html	
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
conforms to the statemen	nts given in this declaration.
Type of product *	NB
Commercial name *	Lenovo 14e Chromebook
Model number *	81MH
Issue date *	2018/12/6
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 nu	ımber *	81MH	Logo	Loro		
Issue dat	:e *	2018/12/6		Lend	DVC	<b>)</b> <sub>TM</sub>
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1		us substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE	£B1)			
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), profluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no mation values.				
P1.4*		do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych l (PCT) in preparations (see legal reference).	lorinated	$\boxtimes$		
P1.5*	Products	do not contain more than $0.1\%$ short chain chloroparaffins (SCCP) with 10-13 carl ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in th	e 🔀		
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	),5 μg/cm²/weel	k 🔀		
P1.7*		Article 33 information about substances in articles is available at (add URL or mail vw.lenovo.com/social_responsibility/us/en/environment.html	contact):			
P2	Batterie	s				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with land Information on proper disposal is provided in user manual. (See legal reference)	the disposal			
P2.2*	Batteries reference	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See lega	ıl 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		$\boxtimes$		
P3	Conforn	nity verification & Eco design (ErP)		_		
P3.1*	The proc The Dec	luct is CE-marked to show conformance with applicable legal requirements (see legal laration of Conformity can be requested at (add link or e-mail address):  www.lenovo.com/social_responsibility/us/en/ec_doc_notebooks/	gal reference).			
P3.2*	The proc	luct complies with the Eco design requirements for energy-related products, al reference).				
	Required	d information is;  given in item P15 or added to this document,  available at (add URL):  www.lenovo.com/social_responsibility/us/en/datasheets_notebooks/				
P5		packaging				
P5.1*	Packagir	ng and packaging components do not contain more than 0,01% lead, mercurent chromium by weight of these together.	y, cadmium ar	nd 🔀		
P5.2*	The pack	kaging materials are marked with abbreviations and numbers indicating the nature (elegal reference).	of the material(	s) 🔀		
P5.3*	The prod (see lega	luct packaging material is free from ozone depleting substances as specified in the Nal reference). In the Interest of the Int	/lontreal Protoc	ol 🔀		
P6		nt information				
P6.1*		on for recyclers/treatment facilities is available (see legal reference).				

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 *	81MH	Logo	Lanava
Issue date *	2018/12/6		Lei IOVO,

Product	environmental attributes - Market requirements (See General NOTE GN below)			
	- Environmental conscious design	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		Щ.	
P7.2*	Plastic materials in covers/housing have no surface coating.	$\boxtimes$	Щ	
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			
P7.8*	Upgrading can be done using commonly available tools			
P7.9	Spare parts are available after end of production for: 5 years			
P7.10	Service is available after end of production for: 5 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
P7.12	Material type: aluminum Material type: plastics Material type:			
	Insulation materials of external electrical cables are PVC free.			-
P7.13	Insulation materials of internal electrical cables are PVC free.		Щ.	<del>-  -</del>
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			Ш
	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 as defined in IEC 61249-2-21. (See 1NOTE B2)	n 🛚		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABS-TD15FR(40)<	$\boxtimes$		
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: , CAS #:		$\boxtimes$	
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g		$\boxtimes$	
	according ISO 1043-4:			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in	<u> </u>		
	concentrations above 0,1%:			
	1. Chemical name: confidential , CAS #: confidential (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:	<u> </u> _		Щ.
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been		$\boxtimes$	
	assigned the following Risk phrases; and Hazard statements:			
D7 00*	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):			Ш
1	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 2.06%.			
	or b) The weight of recycled material is <b>8.1</b> 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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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 *	81MH	Logo	Lonovo
Issue date *	2018/12/6		Leilovo

Product environmental attributes - Market requirements (continued)	Requi	remer	nt met
Item	Yes	No	n.a.

Material and subs	tance requirements	(continued)		
P7.21* Biobased plastic m	aterial content is used	d in the product (See N	IOTE B7):	
a) Of total plastic total plastic by		es below shall be answ the biobased plastic n		ated as a percentage of
or b) The weight of	the biobased plastic i	material is <i>0</i> g.		
P7.22* Light sources are f		less than 0,1 mg/lamp	num mercury content po	er lamp: mg
P8 Batteries	, , , , , , , , , , , , , , , , , , , ,		<u> </u>	, , , , , , , , , , , , , , , , , , ,
P8.1* Battery chemical c	omposition: Li-polyn	ner		
P9 Energy consumpt	tion (See NOTE B8)			
P9.1 For the product the	following power level	ls or energy consumpti		
Energy mode *	Power level at	Power level at	Power level at	Reference/Standard for energy
5 (6)	100 V AC	115 V AC	230 V AC	modes and test method *
Peak (On-max)	<b>45</b> W	<b>45</b> W	<b>45</b> W	Full load
Category NB1				
Short Idle State - WOL Enabled	5.12 W	5.12 W	5.36 W	Use for ENERGY STAR V6 registration (Pidle)
Long Idle State - WOL Enabled	2.74 W	2.74 W	1.99 W	Use for ENERGY STAR V6 registration (Pidle)
Sleep (S3) - WOL Enabled	0.65 W	0.65 W	0.70 W	Use for ENERGY STAR V6 registration(P <sub>sleep</sub> )
Sleep (S3) - WOL Disabled	0.65 W	<b>0.65</b> W	0.70 W	Reference
Off (S5) - WOL Enabled	0.46 W	<b>0.47</b> W	0.50 W	Use for ENERGY STAR V6 registration(Poff)
Off (S5) - WOL Disabled	<b>0.46</b> W	<b>0.47</b> W	0.50 W	Use for ErP
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)	0.024 W	0.028 W	0.063 W	
PTEC * Typical Energy Consumption	W	W	W	
ETEC * Annual Energy Consumption	<b>18.86</b> kWh/year	18.88 kWh/year	<b>19.07</b> kWh/year	ETEC = (8760/1000) x (Poff x 0.25 + Psleep x 0.35 + Plong_ldle x 0.10+ Pshort Idle x 0.30)
	Poff: Off Mode(S5) - We	OL Enabled; Psleep: Sleep	p Mode(S3) - WOL Enabl	ed; Pidle: Idle State - WOL Enabled
External Power Supply Efficien	cy Level (Internationa	l Efficiency Marking Pr	otocol) * : VI	
Display resolution *: 1920*108	0 megapixels			
Default time to enter energy sa	ve mode: 8 minutes			
		ion is provided with the	product.	
P9.3 Energy efficiency of	lass (monitors only):			
P10 Emissions				
	Declared according to	o ISO 9296 (See NOTE	E B9)	
	lode description			it A-weighted sound power level, L <sub>WA,c</sub> (B)
	Idle		* 2.7	
	CPU Operating		* 2.7	
Other mode D	eclared A-weighted soun	od pressure level (dB) $L_{p{\sf A}}$	17.0 (operator p	osition desktop – idle)
1		DA	m į · · ·	
Other mode D	eclared A-weighted soun	ad pressure level (dB) $L_{pA}$	m 17.1 (operator p	osition desktop – operating)

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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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

Model nu	umber *	81MH			Logo	Long		
Issue da	te *	2018/12/6				Leno	VO.	м
Produc	t environ	mental attributes	- Market requirements	(continued)		Require	ment	met
Item						Yes	No	n.a.
	Electro	magnetic emission	s					
P10.4		er display meets the (s): MPR-II(3 pin A	requirement for low frequence	ncy electromagnetic field	s of the following voluntary	y 🔀		
P12		mics for computing						
P12.1*			nomic requirements of ISO 9	9241-307 for visual displa	ay technologies.		П	
P12.2*			eets the requirements of IS	<u> </u>	· · · · · · · · · · · · · · · · · · ·			
P13	Packagi	ing and documenta	ntion					
P13.1*	Product	packaging material packaging material packaging material	type(s): Corrugated paper type(s): Molded pulp weig type(s): LDPE weig	weight (kg): <b>0.416</b> ht (kg): <b>0.249</b> ht (kg): <b>0.013</b>				
P13.2*	Product	plastic primary pack	aging is free from PVC.			$\boxtimes$		
P13.3*		duct primary corrug	ated fiberboard packaging, ontent: <b>80</b> %	specify the contained p	percentage of minimum p	oost-		
P13.4*		media for user and ր ronic, ⊠Paper, □	product documentation (tick Other	box):				
P13.5	Ùser and		em if paper documentation ation on paper media is chlo					
	Element	hlorine-free al chlorine-free						
		ed chlorine-free						
P14		ry programs						
P14.1	The prod	duct meets the requi	rements of the following vol	luntary program(s):				
	ENERG Eco-labe Eco-labe		Criteria version: <b>7.1</b> Criteria version: Criteria version:	Date: 2019/1/24 Date: Date:	Product category: <b>NB1</b> Product category: Product category:			
P15	Additio	nal information (Se	e NOTE B10)					
P9	Energy	consumption of sp	ecific configuration may	vary; description of the	tested product configu	ration:		
	informat knowled	ion contained in this ge available at the t I here is approximat	epresentations, guarantees, document. All information p ime of completion, and supp e and provided for informati	provided by supplier in the plier shall have no obligated	is document is provided be tion to update such inform	ased on suppation. The inf	olier's formati	ion
P9			otebooks & Tablet Computed ex.cfm?fuseaction=find_a					
			<del></del>					

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 14e Chromebook	Logo	
Model Number	81MH		Lonovo
Issue Date	2018/12/6		Lenovo.
Additional information			

(d)	Year of manufacture:				2018
e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are
(f)	Etec value (kWh) per ErP Lot 3 Categor enable	ry and capability adjust	ments applied when a	II discrete graphics o	cards (dGfx) are
		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]	8G			
ents 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)
bility a	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capa appl	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	NA			
esults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	8.66			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);	<u> </u>	<u>I</u>		2.25
(h)	Sleep mode power demand (Watts);				0.65
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.65
(j)	Off mode power demand (Watts);				0.41
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.41
(1)	Internal power supply efficiency at 10 %,	, 20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
(m)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: 45W: 79.85%	, 65W: 81.12% COMF	PAL meet Level V		
	*internal note: show values for all available external p				
(o)	Minimum number of loading cycles that t	the batteries can withs	tand (applies only to n	otebook computers):	NA
(p-1)	Measurement methodology used to dete	ermine information mer	itioned in points (I) – ir	nternal PSU efficiency:	
(p-2)	Measurement methodology used to dete	ermine information mer 63:2011 measuremen		external PSU efficiend	cy:

(p-3) Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries:  EN 61960 measurement methodology				
(p-4)	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 62623:2013 measurement methodology			
(q)	Sequence of steps for achieving a stable condition with respect to power demand:  EN 62623:2013 measurement methodology			
(r)	Description of how sleep and/or off mode was selected or programmed:  By selecting sleep and/or off mode thru Chrome's operating system			
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:  Automatically changes to sleep after 8 minutes			
(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):			30 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):			NA
(v)	Length of time before the display sleep mode is set to activate after user inactivity (in minutes):		8 minutes	
(w) Information on the energy-saving potential of power management functionality:  **User information described in User Guide and Power Manager under ThinkVantage menu in all programs**  (x) User information on how to enable the power management functionality:				
User information described in User Guide and Power Manager under ThinkVantage menu in all programs				
(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 %				
Additional Notebook Battery Information:				
		Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a
		The battery[ies] in this product cannot be easily replaced by users themselves. $^{\rm 1)}$		
Internal/built-in Battery				
External/detachable Battery				
Bios Backup Battery				
Other:				
Additional information				
)				

1)
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.

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). Šio gaminio baterijos [baterijų] 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 ușor 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.