



ИЦ ГЛОБАЛТЕСТ ООД

1618 София, ул. "Крушовски връх" 31

тел./факс (02) 955 9862; 955 9837; 44 10 329

www.globaltest-bg.com - office@globaltest-bg.com

TC GLOBALTEST Ltd.

31, Krushovski vrah Str, 1618 Sofia, Bulgaria

tel./fax (+359 2) 955 9862; 955 9837; 44 10 329

www.globaltest-bg.com - office@globaltest-bg.com

CERTIFICATE OF ANALYSIS

Number and date of issue: RN28159 / 15 Sept 2020

Application for testing №: RN28159 / 04 Sept 2020

Period of conducting the tests 11 Sept 2020 r. to 14 Sept 2020

Client:	
Test object:	System, model Retail X, serial #20202800003, working under the technology with models: Dental, Jewellery, Hairdressing, Textile cabinet, Home and office set, I-box virus protection set, Portable set
Scope of tests:	Inoculation (contamination) of pre-sterilized samples of fabric, metal and plastic with a known number of microorganisms from the following strains: Staphylococcus aureus ATCC 6538, Pseudomonas aeruginosa ATCC 9027, Escherichia coli K 12, Candida albicans ATCC 10231, Aspergillus niger 16404. The inoculated samples of fabric, metal and plastic were placed in the Toruko system for an 8 minute cycle, after which the degree of reduction of microorganisms was reported. Expression of results in% for greater accuracy
Conclusion:	After the 8 minutes cycle in the closed system, model Retail X, serial #20202800003, where a pre-sterilized samples of fabric, metal and plastic were placed, inoculated with a known number of microorganisms from the following strains: Staphylococcus aureus ATCC 6538, Pseudomonas aeruginosa ATCC 9027, Escherichia coli K 12, Candida albicans ATCC 10231, Aspergillus niger ATCC 16404, a degree of reduction from 99.99562% to 100% inclusive is reported in the different samples, as shown in Table 1.
Study performed by:	Ms.Tanya Pancheva, Ph.D., microbiologist, Department manager "Microbiological analyses" at Testing center "GLOBALTEST"

Table 1

Degree of reduction %	Staphylococcus aureus ATCC 6538	Pseudomonas aeruginosa ATCC 9027	Escherichia coli ATCC 8739	Candida albicans ATCC 10231	Aspergillus niger ATCC 16404
Fabric	99.99951	99.99998	99.99921	99.99936	99.99731
Metal	100.00000	100.00000	99.99921	99.99962	99.99562
Plastic	99.99960	99.99993	99.99921	NA	NA

Lab manager:

Dimitar Tanev, Dipl.Eng

signature  stamp 

NOTE: Test results are for the test sample only; The test report may only be used in its entirety; The laboratory does not commit itself to the reliability of the data submitted by the applicant and the representativeness of the sample submitted for testing. This CoA is issued electronically.

Conducting the test:

Preparation of referent microorganisms test suspensions					
Type	Typical bacteria			Yeast	Molds
	S. aureus	Ps. aerug	E. coli	C. albicans	A. brasil
Culture type	ATCC	ATCC	ATCC	ATCC	ATCC
	6538	9027	8739	10231	16404
Suspension solvent	NCI 9g/L; BP				
McFarland	0.5	0.7	0.5	4.0	5.0
Dilution d 1:10	10 ⁻⁶	10 ⁻⁶	10 ⁻⁶	10 ⁻⁵	10 ⁻⁵
Formulation	1/10 x	1/10 x	1/10 x	1/10 x	1/10 x
	1/10 x	1/10 x	1/10 x	1/10 x	1/10 x
	1/10 x	1/10 x	1/10 x	1/10 x	1/10 x
	1/10 x	1/10 x	1/10 x	1/10 x	1/10 x
	1/10 x	1/10 x	1/10 x	1/10	1/10
	1/10	1/10	1/10		
ml, 1:10	1ml suspension + 9ml buffer				
Storing conditions of microorganism suspensions	2-8 °C	2-8 °C	2-8 °C	2-8 °C	2-8 °C
	Up to 24 h	Up to 24 h	Up to 24 h	Up to 24 h	Up to 24 h
Determination the concentration of test suspensions					
Start date:	11 Sept 2020				
End date:	13 Sept 2020				
Quantity of suspension tested on petri dishes, ml	0.1ml	0.1ml	0.1ml	0.1ml	0.1ml
Incubation conditions	30-35 °C	30-35 °C	30-35 °C	20-25 °C	20-25 °C
	24 h	24 h	24 h	3 d	3 d
Media		CSA		SDA	
Distributed-fit					
Results cfu/petri	d	10 ⁻⁵	10 ⁻⁵	10 ⁻⁵	10 ⁻⁵
	petri1 max	210	129	197	74
	petri2 min	204	123	181	70
X average cfu/petri	207.00	126.00	189.00	72.00	16.00
T Coutput[cfu/ml]= (X _{cp} x1/d _{1:10})/ml	207,000,000	126,000,000	189,000,000	72,000,000	16,000,000
	2.07	1.26	1.89	7.20	1.60
	x10 ⁸	x10 ⁸	x10 ⁸	x10 ⁷	x10 ⁷

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Precision:

The media and strains used are according to PhEur 2.6.12									
Analysis:	Indoor irradiation			Suspension test - precision in execution between two petri					
Samples used:	Fabric, Metal, Plastic								
Type MO	Count cfu/petri						Theoretical range of variation	of	Calculated range of variation
	a max	loga max	a min	loga min	average, \bar{A}	log \bar{A}			
Staphylococcus aureus	210	2.322219	204	2.309630	207.00	2.315925	6.950480	≥	0.543590
Pseudomonas aeruginosa	129	2.110590	123	2.089905	126.00	2.100247	8.908708	≥	0.984865
Escherichia coli	197	2.294466	181	2.257679	189.00	2.276072	7.273930	≥	1.616278
Candida albicans	74	1.869232	70	1.845098	72.00	1.857165	11.785113	≥	1.299490
Aspergillus brasiliensis	17	1.230449	15	1.176091	16.00	1.203270	25.000000	≥	4.517495
Acceptance criteria:	Calculated range of variation < Theoretical range of variation								

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Materials:

Test	Inoculation with 0.1ml 10 ⁸ 10 ⁷ cfu test MO/ material
Materials used:	Fabric, Metal, Plastic – pre-sterilized
1. The surface of the material is contaminated with a control suspension, with a known concentration of the control microorganism	
2. The material is irradiated in the device in one cycle	
3. The material is immersed and washed with 100 ml of sterile solvent, leaving the remaining number of microorganisms in the solvent.	
4. The residual number of microorganisms on the material was determined by a membrane filtration method, filtering the entire amount of solvent through a cellulose-nitrate filter with a pore size of 0,45 µm	
5. The filters were placed by aseptic technique on petri suitable for control microorganisms with sterile media, after which the petri were thermostated at suitable periods and temperatures suitable for the development of microorganisms.	
6. The number of microorganisms on the used filters was determined	

Start date: 11 Sept 2020 – End date: 14 Sept 2020									
Dilution, d		Fabric			Metal			Plastica	
Reported		cfu/ petri			cfu/ petri			cfu/ petri	
Staphylococcus aureus			101			0			82
Pseudomonas aeruginosa			3			0			9
Escherichia coli		>	150		>	150		>	150
Candida albicans			46			27			NA
Aspergillus brasiliensis			43			70			NA

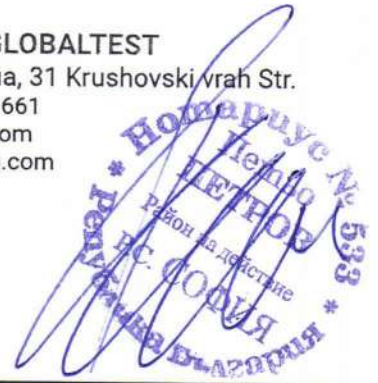
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Reduction:

Test MO	Inoculated cfu on material (cfu/0.1 ml)	Content of viable microorganisms on the material			Log reduction		
		Fabric	Metal	Plastic	Fabric	Metal	Plastic
					log 10	log 10	log 10
Staphylococcus aureus	20,700,000	101	0	82	5.3	7.3	5.402156
Pseudomonas aeruginosa	12,600,000	3	0	9	6.6	7.1	6.146128
Escherichia coli	18,900,000	150	150	150	5.1	5.1	5.100371
Candida albicans	7,200,000	46	27	NA	5.2	5.4	-
Aspergillus brasiliensis	1,600,000	43	70	NA	4.6	4.4	-

THE END

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TEST REPORT

№ and date of test report **RN28166 / 14/09/2020** Internal request for testing № **RN28166 / 08/09/2020**
Testing period **08/09/2020-13/09/2020**

Customer: [REDACTED]

Customer's address: **8 Dimitar Dimov str., Blagoevgrad, Republic of Bulgaria**

№ and date of assignment document: -

Method of arrival of the test item: **The swab is taken on Sept 8th, 2020, by Testing Center Globaltest lab specialist**

Date of receipt of test item: **08/09/2020**

Test item: **Swab №1-1 from a Turkish banknote of 10 liras - after applying a 8 minutes sterilization cycle with Toruko sterilization system, model Retail X, serial №20202800003, working on Toruko technologies with models Dental set, Jewelry set, Hairdressing set, Textile cabinet, Home and office set, I-box virus protection kit, Portable kit**

Manufacturer: -

Normative references : **0545-ILM-GT-2018, BDS EN ISO 11290-1:2017, BDS EN ISO 4833-1:2013, BDS EN ISO 6579-1:2017/A1:2020, BDS EN ISO 6888-3:2005/AC:2005, BDS ISO 21528-2:2017, ISO 16649-3:2015, ISO 4831:2006**

Number of test items: **1 swab**

Test performed by: **Biotechnological engineer Rositza Antonova**

Test report issued by: **Chemical engineer Dimitar Tanev**

TC GLOBALTEST Manager
Dipl.eng.Dimitar Tanev



stamp signature

Results are listed on pages 2 to 2

ESD 7.8-2

NOTE:

Test results are only for the tested item. The report could be used only in its whole. Test report is valid only with "wet" stamp or signed electronically.

RESULTS FROM TESTS – Test report RN28166 / 14/09/2020

Type of characteristic / Parameter	Method	Unit of measurement	Limit (Range)	Result	Uncertainty	Test
Coagulase-positive staphylococci (Staphylococcus aureus and other species)	BDS EN ISO 6888-3:2005/ AC:2005	-	---	Absent	-	37.0 ± 0.1 °C
Coliforms	ISO 4831:2006	-	---	Absent	-	37.0 ± 0.1 °C
Enterobacteriaceae	BDS ISO 21528-2:2017	cfu/cm ²	---	<1	-	37.0 ± 0.1 °C
Escherichia coli	ISO 16649-3:2015	-	---	Absent	-	44.0 ± 1 °C
Listeria monocytogenes / Listeria spp	BDS EN ISO 11290-1:2017	-	---	Absent	-	37.0 ± 0.1 °C
Salmonella spp	BDS EN ISO 6579-1:2017/ A1:2020	-	---	Absent	-	37.0 ± 0.1 °C
Total aerobic microbial count (TAMC)	BDS EN ISO 4833-1:2013	cfu/cm ²	---	<1	-	30.0 ± 0.1 °C
Total yeast / mold count (TYMC)	0545-ILM-GT:2018	cfu/cm ²	---	<1	-	25.0 ± 0.1 °C

(a) – the test method is in scope of accreditation; (na) – the test method is out of scope of accreditation;

На 14.09.2020 **Петьо Цанев Петров**
Нотариус в район - Районен съд-град София
Рег. № 533 на Нотариалната Камара, удостоверявам
верността на този препис, снет от: **оригинал**
на официален (частен) документ, представен ми от:

Соня Александрова Янкова ЕГН 8701276591
с местожителство в гр. (с.)

като в първообраза нямаше зачерквания, прибавки,
поправки и други особености.

Рег.№ 6441

Такса: 3.60 лв.

Нотариус:

ПОМОЩНИК - НОТАРИУС
ВИКТОР ВЕЛЕВ

Забележка:

Долуподписаният, **ВИКТОР СЕРГЕЕВ ВЕЛЕВ**, като помощник-нотариус в кантората на Нотариус Петьо Петров, рег. № 533 към СРС, с настоящата декларирам, че документ, вписан в Общия регистър на Нотариус Петьо Петров, рег. № 533 към СРС с рег. № 6441 от 14.09.2020г., съм заверил на основание чл. 589, ал. 3 във вр. с чл. 582 от ГПК, тъй като разбирам и владее английски език.

.....

Нотариус **Петьо Цанев Петров** № 533
Район на действие
Р.С. СОФИЯ

ПОМОЩНИК - НОТАРИУС
ВИКТОР ВЕЛЕВ

APOSTILLE (Convention de La Haye du 5 octobre 1961) 1.Държава: Република България 2.Този публичен акт е подписан от ВИКТОР ВЕЛЕВ	
3.в качеството му на ПОМОЩНИК - НОТАРИУС	
4.и е поставен печат/ марка НОТ. 533 ПЕТЬО ПЕТРОВ - СОФИЯ	
Заверен 5.в София, България б.на 14.09.2020	
7.от Министерството на правосъдието 11838	
8.под №	
9.Печат	10.Подпис
http://apostil.mjs.bg/ Код : 302040094014838	



Изпитвателен център ГЛОБАЛТЕСТ
1618 София, ул. „Крушовски връх“ № 31
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Bulgaria, 1618 Sofia, 31 Krushovski vrah Str.
Tel/fax +359 700 20 661
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office@globaltest-bg.com



TEST REPORT

№ and date of test report **RN28167 / 14/09/2020** Internal request for testing № **RN28167 / 08/09/2020**
Testing period **08/09/2020-13/09/2020**

Customer: [Redacted]

Customer's address: **8 Dimitar Dimov str., Blagoevgrad, Republic of Bulgaria**

№ and date of assignment document: -

Method of arrival of the test item: **The swab is taken on Sept 8th, 2020, by Testing Center Globaltest lab specialist**

Date of receipt of test item: **08/09/2020**

Test item: **Swab №3-1 from 2 coins (Bulgarian and Turkish) - after applying a 8 minutes sterilization cycle with Toruko sterilization system, model Retail X, serial №20202800003, working on Toruko technologies with models Dental set, Jewelry set, Hairdressing set, Textile cabinet, Home and office set, I-box virus protection kit, Portable kit**

Manufacturer: -

Normative references : **0545-ILM-GT-2018, BDS EN ISO 11290-1:2017, BDS EN ISO 4833-1:2013, BDS EN ISO 6579-1:2017/A1:2020, BDS EN ISO 6888-3:2005/AC:2005, BDS ISO 21528-2:2017, ISO 16649-3:2015, ISO 4831:2006**

Number of test items: **1 swab**

Test performed by: **Biotechnological engineer Rositza Antonova**

Test report issued by: **Chemical engineer Dimitar Tanev**

TC GLOBALTEST Manager
Dipl.eng.Dimitar Tanev



Results are listed on pages: 2 to 2

ESD 7.8-2

NOTE:
Test results are only for the tested item. The report could be used only in its whole. Test report is valid only with "wet" stamp or signed electronically.

RESULTS FROM TESTS – Test report RN28167 / 14/09/2020

Type of characteristic / Parameter	Method	Unit of measurement	Limit (Range)	Result	Uncertainty	Temp
Coagulase-positive staphylococci (Staphylococcus aureus and other species)	BDS EN ISO 6888-3:2005/ AC:2005	-	---	Absent	-	37.0 ± 0.1
Coliforms	ISO 4831:2006	-	---	Absent	-	37.0 ± 0.1 °C
Enterobacteriaceae	BDS ISO 21528-2:2017	cfu/cm ²	---	<1	-	37.0 ± 0.1 °C
Escherichia coli	ISO 16649-3:2015	-	---	Absent	-	44.0 ± 1 °C
Listeria monocytogenes / Listeria spp	BDS EN ISO 11290-1:2017	-	---	Absent	-	37.0 ± 0.1 °C
Salmonella spp	BDS EN ISO 6579-1:2017/ A1:2020	-	---	Absent	-	37.0 ± 0.1 °C
Total aerobic microbial count (TAMC)	BDS EN ISO 4833-1:2013	cfu/cm ²	---	<1	-	30.0 ± 0.1 °C
Total yeast / mold count (TYMC)	0545-ILM-GT:2018	cfu/cm ²	---	<1	-	25.0 ± 0.1 °C

(a) – the test method is in scope of accreditation; (na) – the test method is out of scope of accreditation;

На 14.09.2020 **Петьо Цанев Петров**
Нотариус в район - Районен съд-град София
Рег. № 533 на Нотариалната Камара, удостоверявам
верността на този препис, снет от: **ОРИГИНАЛ**
на официален (частен) документ, представен ми от:
Соня Александрова Янкова ЕГН 8701276591
с местожителство в гр. (с.)
като в първообраза нямаше зачерквания, прибавки,
поправки и други особености.
Рег.№ 6443 Такса: 3.60 лв.
Нотариус:

ПОМОЩНИК
ВИКТОР

Забележка:

Долуподписаният, **ВИКТОР СЕРГЕЕВ ВЕЛЕВ**, като помощник-нотариус в кантората на Нотариус Петьо Петров, рег. № 533 към СРС, с настоящата декларирам, че документ, вписан в Общия регистър на Нотариус Петьо Петров, рег. № 533 към СРС с рег. № 6443 от 14.09.2020г., съм заверил на основание чл. 589, ал. 3 във вр. с чл. 582 от ГПК, тъй като разбирам и владее английски език.

.....
Петьо Цанев Петров
Район на действие
Р.С. СОФИЯ
Рег. № 533

ПОМОЩНИК - НОТАРИУС
ВИКТОР ВЕЛЕВ

APOSTILLE
(Convention de La Haye du 5 octobre 1961)

1. Държава: Република България
2. Този публичен акт е подписан от
ВИКТОР ВЕЛЕВ

3. в качеството му на
ПОМОЩНИК - НОТАРИУС

4. и е поставен печат / марка
НОТ. 533 ПЕТЬО ПЕТРОВ - СОФИЯ

Заверен
5. в София, България 6. на **14.09.2020**

7. от Министерство на правосъдието
8. под № **11835**

9. Печат 10. Подпис

<http://apostil.mjs.bg/>

Код : **182024092714835**





TEST REPORT

№ and date of test report **RN28165 / 14/09/2020** Internal request for testing № **RN28165 / 08/09/2020**
Testing period **08/09/2020–13/09/2020**

Customer: [Redacted]

Customer's address: **8 Dimitar Dimov str., Blagoevgrad, Republic of Bulgaria**

№ and date of assignment document: **-**

Method of arrival of the test item: **The swab is taken on Sept 8th, 2020, by Testing Center Globaltest lab specialist**

Date of receipt of test item: **08/09/2020**

Test item: **Swab №1-1 from Bulgarian banknote of BGN 5 - after applying a 8 minutes sterilization cycle with Toruko sterilization system, model Retail X, serial №20202800003, working on Toruko technologies with models Dental set, Jewelry set, Hairdressing set, Textile cabinet, Home and office set, I-box virus protection kit, Portable kit**

Manufacturer: **-**


Normative references : **0545-ILM-GT:2018, BDS EN ISO 11290-1:2017, BDS EN ISO 4833-1:2013, BDS EN ISO 6579-1:2017/A1:2020, BDS EN ISO 6888-3:2005/AC:2005, BDS ISO 21528-2:2017, ISO 16649-3:2015, ISO 4831:2006**

Number of test items: **1 swab**

Test performed by: **Biotechnological engineer Rositza Antonova**

Test report issued by: **Chemical engineer Dimitar Tanev**

TC GLOBALTEST Manager
Dipl.eng.Dimitar Tanev




Results are listed on pages **2 to 2** ESD 7.8-2

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RESULTS FROM TESTS – Test report RN28165 / 14/09/2020

Type of characteristic / Parameter	Method	Unit of measurement	Limit (Range)	Result	Uncertainty	Test Temp
Coagulase-positive staphylococci (Staphylococcus aureus and other species)	BDS EN ISO 6888-3:2005/ AC:2005	-	---	Absent	-	37.0 ± 0.1 °C
Coliforms	ISO 4831:2006	-	---	Absent	-	37.0 ± 0.1 °C
Enterobacteriaceae	BDS ISO 21528-2:2017	cfu/cm ²	---	<1	-	37.0 ± 0.1 °C
Escherichia coli	ISO 16649-3:2015	-	---	Absent	-	44.0 ± 1 °C
Listeria monocytogenes / Listeria spp	BDS EN ISO 11290-1:2017	-	---	Absent	-	37.0 ± 0.1 °C
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На 14.09.2020 **Петьо Цанев Петров**
 Нотариус в район - Районен съд-град София
 Рег. № 533 на Нотариалната Камара, удостоверявам
 верността на този препис, снет от: **ОРИГИНАЛ**
 на официален (частен) документ, представен ми от:
Соня Александрова Янкова ЕГН 8701276591
 с местожителство в гр. (с.)
 като в първообраза нямаше зачерквания, прибавки,
 поправки и други особености.

Рег.№ 6442 Такса: 3,60 лв.

Нотариус:

ПОМОЩНИК -
ВИКТОР ВЕЛЕВ

Забележка:

Долуподписаният, **ВИКТОР СЕРГЕЕВ ВЕЛЕВ**, като помощник-нотариус в кантората на Нотариус Петьо Петров, рег. № 533 към СРС, с настоящата декларирам, че документ, вписан в Общия регистър на Нотариус Петьо Петров, рег. № 533 към СРС с рег. № 6442 от 14.09.2020г., съм заверил на основание чл. 589, ал. 3 във вр. с чл. 582 от ГПК, тъй като разбирам и владея английски език.

ПОМОЩНИК - НОТАРИУС
ВИКТОР ВЕЛЕВ

АPOSTILLE	
(Convention de La Haye du 5 octobre 1961)	
1. Държава: Република България	
2. Този публичен акт е подписан от ВИКТОР ВЕЛЕВ	
3. в качеството му на ПОМОЩНИК - НОТАРИУС	
4. и е поставен печат/ марка НОТ. 533 ПЕТЬО ПЕТРОВ - СОФИЯ	
Заверен	14.09/2020
5. в София, България б.на	
7. от Министерство на правосъдието	11842
8. под №	
9. Печат	10. Подпис
http://apostil.mjs.bg/	
Код : 552062096514842	

