

Applicant: DIGIDELTA INTERNACIONAL IMPORT EXPORT SA
ZONA INDUSTRIAL DE TORRES NOVAS LOTE 1 CASAL TORTEIRO
2350-483 TORRES NOVAS - Portugal

Invoicing applicant:

Sample Description: PVC Clear Matte - Without Antibacterial Treatment/ PVC Clear Matte - With Antibacterial Treatment

Color: -

Claimed Fibre Composition: -

Your Reference: -

Requirements: -

Sample Receiving Date: 22.06.2020

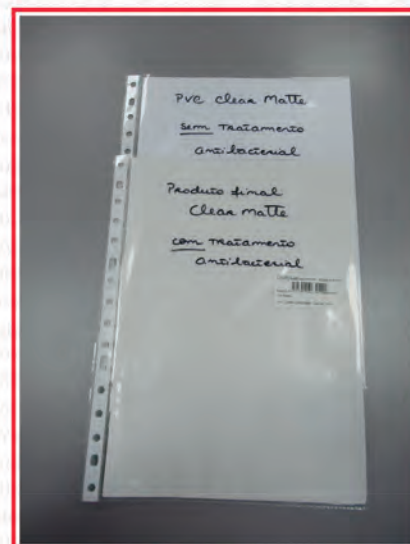
Test Start Date: 23.06.2020

Test End Date: 13.07.2020

Service Type: Normal

Working Days: 14

Observation: -



Trofa, 15 July 2020

Assinado de forma digital
por Liliana Maurícia Neves
Maia
Dados: 2020.07.15
14:25:23 +01'00'

Laboratory Manager

Note:

The results of this report were obtained according to the procedures described in Quality Lab's Quality Management Manual and refer only to the samples submitted to tests, as above mentioned. The Test Report cannot be reproduced except in full, without prior approval of the Laboratory. Tests marked with '1' are not included in the IPAC Accreditation and tests marked with '*' are not included in the scope of the accreditation and were carried out by external supplier. The opinion expressed in this report is not included in the scope of accreditation. "A" - Amended. The report is valid if digitally signed. Any alteration, falsification of the content or appearance of this report is illegal and offenders may be prosecuted in accordance with applicable law.

Sample Information:

Sample ID	Description	Equivalent Code
001	PVC Clear Matte - Without Antibacterial Treatment	-
002	PVC Clear Matte - With Antibacterial Treatment	-

Test	Sample ID	
	001	002
DETERMINATION OF ANTIBACTERIAL ACTIVITY	-	NR
ANNEX	-	NR

Note: P= Meets Customer requirements; F= Does not meets Customer requirements; NR = No specified requirements;

In the assessment of conformity, the test uncertainty associated was not taken into account, unless otherwise indicated by the customer.

DETERMINATION OF ANTIBACTERIAL ACTIVITY

ISO 22196:2011*

Sample ID	Species of bacteria	Parameter	Results (uncertainty)	Requirement
002	Staphylococcus aureus ATCC 6538	% reduction	99.00% (2.27 log)	No Requirements
	Escherichia coli ATCC 10536	% reduction	99.90% (3.07 log)	
	Klebsiella pneumoniae ATCC 4352	% reduction	99.00% (2.27 log)	
	Enterococcus faecalis ATCC 19433	% reduction	99.90% (3.44 log)	
	Listeria monocytogenes ATCC 13932	% reduction	99.99% (4.01 log)	
	Salmonella enterica ATCC 14028	% reduction	99.90% (2.82 log)	
	Pseudomonas aeruginosa ATCC 15442	% reduction	99.00% (2.48 log)	
Conclusion				--

Test Conditions:

Decontamination: Ethanol 70° / 15min
 Cover films: PET, 4x4cm, square, thickness, around 1mm
 Contact time: 24h
 Test temperature: 32,5°C +-2,5°C
 Volume inoculum solution: 0,4mL, Eugon broth
 Washing solution: SCDLP

Species of bacteria: Enterococcus faecalis ATCC 19433 | Nr viable bacteria in the test inoculum: 2.4x10⁴ UFC
 Species of bacteria: Escherichia coli ATCC 10536 | Nr viable bacteria in the test inoculum: 6.3x10⁵ UFC
 Species of bacteria: Klebsiella pneumoniae ATCC 4352 | Nr viable bacteria in the test inoculum: 6.3x10⁴ UFC
 Species of bacteria: Listeria monocytogenes ATCC 13932 | Nr viable bacteria in the test inoculum: 2.0x10⁴ UFC
 Species of bacteria: Pseudomonas aeruginosa ATCC 15442 | Nr viable bacteria in the test inoculum: 8.6x10⁴ UFC
 Species of bacteria: Salmonella enterica ATCC 14028 | Nr viable bacteria in the test inoculum: 1.9x10⁵ UFC
 Species of bacteria: Staphylococcus aureus ATCC 6538 | Nr viable bacteria in the test inoculum: 5.2x10⁴ UFC

Notes: Counts for T0 e T24 control are between 30 and 300UFC

Notes:

For Listeria monocytogenes the sample analyzes shows a Very Good efficacy to kill this species.
 For E.coli, Enterococcus faecalis the sample analyzes shows a Good efficacy to kill this species.

ANNEX

Sample ID	Results	Requirement
002	(see images in annex)	No Requirements
Conclusion		--

End of Report

Enterococcus faecalis			
INOCULUM			
dCx (UFC/mL)	2.4x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	55	59	55
Plate count Replic 2	31	47	49
Cx (UFC)	43	53	52
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	26875	33125	32500
N	30833		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	41	35	37
Plate count Replic 2	38	31	40
Cx (UFC)	40	33	39
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	246875	206250	240625
N	231250		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	17	10	14
Plate count Replic 2	14	15	11
Cx (UFC)	16	13	13
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	97	78	78
N	84		

Reduc Log	
Ut	5.36
At	1.93
R	3.44

<i>Escherichia coli</i>			
INOCULUM			
Cx (UFC/mL)	6.3x10 ⁵		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	80	74	76
Plate count Replic 2	75	71	81
Cx (UFC)	78	73	79
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	48438	45313	49063
N	47604		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	32	39	38
Plate count Replic 2	38	41	45
Cx (UFC)	35	40	42
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	218750	250000	259375
N	242708		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	25	45	22
Plate count Replic 2	31	47	28
Cx (UFC)	28	46	25
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	175	288	156
N	206		

Reduc Log	
Ut	5.39
At	2.31
R	3.07

<i>Klebsiella pneumoniae</i>			
INOCULUM			
Cx (UFC/mL)	6.3x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	69	75	80
Plate count Replic 2	65	71	67
Cx (UFC)	67	73	74
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	41875	45625	45938
N	44479		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	75	82	78
Plate count Replic 2	68	75	72
Cx (UFC)	72	79	75
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	446875	490625	468750
N	468750		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	31	38	27
Plate count Replic 2	38	35	31
Cx (UFC)	35	37	29
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	2156	2281	1813
N	2083		

Reduc Log	
Ut	5.67
At	3.32
R	2.35

<i>Listeria monocytogenes</i>			
INOCULUM			
Cx (UFC/mL)	2.0x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	41	47	52
Plate count Replic 2	35	39	55
Cx (UFC)	38	43	54
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	2375	2688	3344
N	2802		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	290	284	300
Plate count Replic 2	292	290	294
Cx (UFC)	291	287	297
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	181875	179375	185625
N	182292		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	3	5	3
Plate count Replic 2	1	4	1
Cx (UFC)	2	5	2
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	13	28	13
N	18		

Reduc Log	
Ut	5.26
At	1.25
R	4.01

<i>Pseudomonas aeruginosa</i>			
INOCULUM			
Cx (UFC/mL)	8.6x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	51	52	45
Plate count Replic 2	41	50	56
Cx (UFC)	46	51	51
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	2875	3188	3156
N	3073		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	185	177	178
Plate count Replic 2	191	179	192
Cx (UFC)	188	178	185
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	117500	111250	115625
N	114792		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	55	69	55
Plate count Replic 2	48	70	67
Cx (UFC)	52	70	61
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	322	434	381
N	379		

Reduc Log	
Ut	5.06
At	2.58
R	2.48

Salmonella enterica			
INOCULUM			
Cx (UFC/mL)	1.9x10 ⁵		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	55	68	57
Plate count Replic 2	62	65	55
Cx (UFC)	59	67	56
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	36563	41563	35000
N	37708		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	177	185	174
Plate count Replic 2	195	191	168
Cx (UFC)	186	188	171
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	1162500	1175000	1068750
N	1135417		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	28	38	19
Plate count Replic 2	35	29	15
Cx (UFC)	32	34	17
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	1969	2094	1063
N	1708		

Reduc Log	
Ut	6.06
At	3.23
R	2.82

S. aureus			
INOCULUM			
	5.2x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	56	80	62
Plate count Replic 2	59	83	60
Cx (UFC)	58	82	61
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	3594	5094	3813
N	4167		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	130	135	138
Plate count Replic 2	122	139	124
Cx (UFC)	126	137	131
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	78750	85625	81875
N	82083		

SAMPLE ID20209717	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	57	71	85
Plate count Replic 2	54	79	82
Cx (UFC)	56	75	84
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	347	469	522
N	446		

Reduc Log	
Ut	4.91
At	2.65
R	2.27

Note:

Ut0 - average number of cells at time zero

Ut - average number of cells after 24 hours in the negative control

At - average number of cells after 24 hours in the treated products

N – number of cells expressed by CFU/cm² (in case of solid material)

C – mean of CFU

D – dilution factor

V – volume of SCDLP broth added to the sample

A – area recovered by the PET film

R – calculated according to the bacterial concentration in the negative control and the concentration after 24 hours of contact with the treated products.

End of Annex

Applicant: DIGIDELTA INTERNACIONAL IMPORT EXPORT SA
ZONA INDUSTRIAL DE TORRES NOVAS LOTE 1 CASAL TORTEIRO
2350-483 TORRES NOVAS - Portugal

Invoicing applicant: DIGIDELTA INTERNACIONAL IMPORT EXPORT SA

Sample Description: Clear Glossy Final Product - Without Anti Bacterial Treatment/ Clear Glossy Final Product - With Anti Bacterial Treatment

Color: -

Claimed Fibre Composition: -

Your Reference: -

Requirements: -

Sample Receiving Date: 22.06.2020

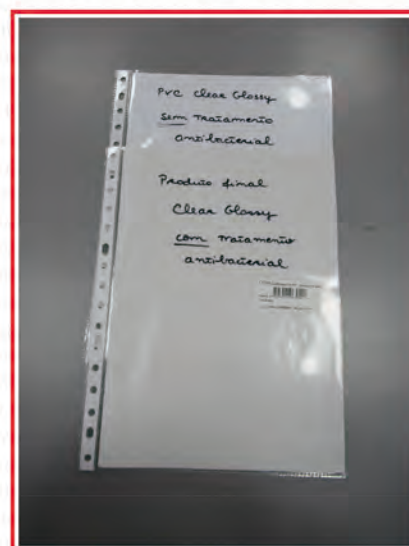
Test Start Date: 23.06.2020

Test End Date: 13.07.2020

Service Type: Normal

Working Days: 14

Observation: This report replaces and supersedes the previous one with the same number dated 15.07.2020. Corretion of Test End Date



Trofa, 15 July 2020

Assinado de forma digital
por Liliana Maurícia Neves
Maia
Dados: 2020.07.15 14:51:45
+01'00'

Laboratory Manager

Note:

The results of this report were obtained according to the procedures described in Quality Lab's Quality Management Manual and refer only to the samples submitted to tests, as above mentioned. The Test Report cannot be reproduced except in full, without prior approval of the Laboratory. Tests marked with '1' are not included in the IPAC Accreditation and tests marked with '*' are not included in the scope of the accreditation and were carried out by external supplier. The opinion expressed in this report is not included in the scope of accreditation. "A" - Amended. The report is valid if digitally signed. Any alteration, falsification of the content or appearance of this report is illegal and offenders may be prosecuted in accordance with applicable law.

Sample Information:

Sample ID	Description	Equivalent Code
001	Clear Glossy Final Product - Without Anti Bacterial Treatment	-
002	Clear Glossy Final Product - With Anti Bacterial Treatment	-

Test	Sample ID	
	001	002
DETERMINATION OF ANTIBACTERIAL ACTIVITY	-	NR
ANNEX	-	-

Note: P= Meets Customer requirements; F= Does not meets Customer requirements; NR = No specified requirements;

In the assessment of conformity, the test uncertainty associated was not taken into account, unless otherwise indicated by the customer.

DETERMINATION OF ANTIBACTERIAL ACTIVITY

ISO 22196:2011*

Sample ID	Species of bacteria	Parameter	Results (uncertainty)	Requirement
002	Staphylococcus aureus ATCC 6538	% reduction	99.00% (2.12log)	No Requirements
	Escherichia coli ATCC 10536	% reduction	99.90% (3.24log)	
	Klebsiella pneumoniae ATCC 4352	% reduction	99.00% (2.02log)	
	Enterococcus faecalis ATCC 19433	% reduction	99.00% (2.72log)	
	Listeria monocytogenes ATCC 13932	% reduction	99.99% (3.97log)	
	Salmonella enterica ATCC 14028	% reduction	99.00% (2.77log)	
	Pseudomonas aeruginosa ATCC 15442	% reduction	99.00% (2.16log)	
Conclusion				--

Test Conditions:

Decontamination: Ethanol 70° / 15min
 Cover films: PET, 4x4cm, square, thickness, around 1mm
 Contact time: 24h
 Test temperature: 32,5°C +-2,5°C
 Volume inoculum solution: 0,4mL, Eugon broth
 Washing solution: SCDLP

Species of bacteria: Enterococcus faecalis ATCC 19433 | Nr viable bacteria in the test inoculum: 2.4x10⁴ UFC
 Species of bacteria: Escherichia coli ATCC 10536 | Nr viable bacteria in the test inoculum: 6.3x10⁵ UFC
 Species of bacteria: Klebsiella pneumoniae ATCC 4352 | Nr viable bacteria in the test inoculum: 6.3x10⁴ UFC
 Species of bacteria: Listeria monocytogenes ATCC 13932 | Nr viable bacteria in the test inoculum: 2.0x10⁴ UFC
 Species of bacteria: Pseudomonas aeruginosa ATCC 15442 | Nr viable bacteria in the test inoculum: 8.6x10⁴ UFC
 Species of bacteria: Salmonella enterica ATCC 14028 | Nr viable bacteria in the test inoculum: 1.9x10⁵ UFC
 Species of bacteria: Staphylococcus aureus ATCC 6538 | Nr viable bacteria in the test inoculum: 5.2x10⁴ UFC

Notes: Counts for T0 e T24 control are between 30 and 300UFC

Notes:

For Listeria monocytogenes the sample analyzes shows a Very Good efficacy to kill this species.
 For E.coli, the sample analyzes shows a Good efficacy to kill this species.

ANNEX

Sample ID	Results	Requirement
002	(see images on annex)	No Requirements
Conclusion		

End of Report

<i>Enterococcus faecalis</i>			
INOCULUM			
Cx (UFC/mL)	2.4x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	52	49	59
Plate count Replic 2	55	43	48
Cx (UFC)	54	46	54
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	3344	2875	3344
N	3188		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	75	71	88
Plate count Replic 2	87	77	75
Cx (UFC)	81	74	82
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	50625	46250	50938
N	49271		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	12	19	19
Plate count Replic 2	15	8	17
Cx (UFC)	14	14	18
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	84	84	113
N	94		

Reduc Log	
Ut	4.69
At	1.97
R	2.72

<i>Escherichia coli</i>			
INOCULUM			
Cx (UFC/mL)	6.3x10 ⁵		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	85	74	88
Plate count Replic 2	68	59	79
Cx (UFC)	77	67	84
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	47813	41563	52188
N	47188		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	55	53	65
Plate count Replic 2	52	48	68
Cx (UFC)	54	51	67
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	334375	315625	415625
N	355208		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	30	25	30
Plate count Replic 2	39	37	35
Cx (UFC)	35	31	33
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	216	194	203
N	204		

Reduc Log	
Ut	5.55
At	2.31
R	3.24

<i>Klebsiella pneumoniae</i>			
INOCULUM			
Cx (UFC/mL)	6.3x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	75	68	69
Plate count Replic 2	67	88	63
Cx (UFC)	71	78	66
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	44375	48750	41250
N	44792		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	39	49	37
Plate count Replic 2	43	41	38
Cx (UFC)	41	45	38
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	256250	281250	234375
N	257292		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	52	25	47
Plate count Replic 2	39	37	35
Cx (UFC)	46	31	41
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	2844	1938	2563
N	2448		

Reduc Log	
Ut	5.41
At	3.39
R	2.02

<i>Listeria</i>			
INOCULUM			
Cx (UFC/mL)	2.0x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	45	41	49
Plate count Replic 2	40	35	52
Cx (UFC)	43	38	51
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	26563	23750	31563
N	27292		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	220	255	240
Plate count Replic 2	235	282	231
Cx (UFC)	228	269	236
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	1421875	1678125	1471875
N	1523958		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	31	25	30
Plate count Replic 2	27	17	25
Cx (UFC)	29	21	28
D	10	10	10
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	181	131	172
N	161		

Reduc Log	
Ut	6.18
At	2.21
R	3.97

<i>Pseudomonas aeruginosa</i>			
INOCULUM			
Cx (UFC/mL)	8.6x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	55	46	47
Plate count Replic 2	48	42	54
Cx (UFC)	52	44	51
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	32188	27500	31563
N	30417		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	120	105	141
Plate count Replic 2	135	129	127
Cx (UFC)	128	117	134
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	796875	731250	837500
N	788542		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	83	85	98
Plate count Replic 2	85	79	90
Cx (UFC)	84	82	94
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	5250	5125	5875
N	5417		

Reduc Log	
Ut	5.90
At	3.73
R	2.16

Salmonella enterica			
INOCULUM			
Cx (UFC/mL)	1.9x10 ⁵		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	68	72	52
Plate count Replic 2	65	68	59
Cx (UFC)	67	70	56
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	41563	43750	34688
N	40000		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	190	203	215
Plate count Replic 2	185	216	229
Cx (UFC)	188	210	222
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	1171875	1309375	1387500
N	1289583		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	51	31	25
Plate count Replic 2	45	34	22
Cx (UFC)	48	33	24
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	3000	2031	1469
N	2167		

Reduc Log	
Ut	6.11
At	3.34
R	2.77

S. aureus			
INOCULUM			
	5.2x10 ⁴		
CONTROL	T0		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	52	58	75
Plate count Replic 2	58	65	64
Cx (UFC)	55	62	70
D	1000	1000	1000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	34375	38438	43438
N	38750		

CONTROL	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	120	145	128
Plate count Replic 2	115	135	132
Cx (UFC)	118	140	130
D	10000	10000	10000
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	734375	875000	812500
N	807292		

SAMPLE ID20209718	T24		
	SAMPLE 1	SAMPLE 2	SAMPLE 3
Plate count Replic 1	110	95	85
Plate count Replic 2	105	103	95
Cx (UFC)	108	99	90
D	100	100	100
V (mL)	10	10	10
A (cm ²)	16	16	16
Nx(UFC/cm ²)	6719	6188	5625
N	6177		

Reduc Log	
Ut	5.91
At	3.79
R	2.12

Notes:

Ut0 - average number of cells at time zero

Ut - average number of cells after 24 hours in the negative control

At - average number of cells after 24 hours in the treated products

N – number of cells expressed by CFU/cm² (in case of solid material)

C – mean of CFU

D – dilution factor

V – volume of SCDLP broth added to the sample

A – area recovered by the PET film

R – calculated according to the bacterial concentration in the negative control and the concentration after 24 hours of contact with the treated products.

End of Annex