

Test Report N. 73 /EL MI18

Spett.le

GRES DE LA MANCHA INTERNACIONAL S.L.
CARRETERA CONSUEGRA KM 1.200
45470 LOS YEBENES - TOLEDO (ES)

Modena 14/02/2018

Receipt N.: 73/EL MI	Date of receipt : 11/01/18	Analysis start date: 29/01/18	Analysis end date: 14/02/18
Material:	Ceramics materials		
Product:	Ceramic tile		
Sample:	Test information: -treated specimen : 50 x 50 mm square, 15 mm thickness; -not-treated specimens : 50 x 50 mm square, 15 mm thickness; -all specimens are rinsed with distilled water and autoclaved at 121°C for 30 minutes before the analysis; -cover film : polypropylene film 40 x 40 mm square - 0.10 mm thickness -volume of test inoculum : 150 ul -test bacteria : Escherichia coli ATCC 8739 and Staphylococcus aureus ATCC 6538P		
Sampling:	made by customer		
Date of sampling:	10/01/18		

Test	Method	UM	Result
Antibacterial activity E. coli ATCC 8739*	ISO 22196:2011		
<i>N. bacteria inoculated*</i>		Log (cells/ml)	6,34
<i>Average number of bacteria non treated specimen after inoculation t=0h U0*</i>		Log(cells/cm2)	4,12
<i>Average number of bacteria non treated specimen after 24h Ut*</i>		Log(cells/cm2)	3,16
<i>Average number of bacteria treated specimen after 24h At*</i>		Log(cells/cm2)	<1
<i>Antibacterial activity R*</i>		Log10	3,4
<i>Antibacterial activity R%*</i>		%	99,96
Antibacterial activity Staph. aureus ATCC 6538P*	ISO 22196:2011		
<i>N. bacteria inoculated*</i>		Log (cells/ml)	6,00
<i>Average number of bacteria non treated specimen after inoculation t=0h U0*</i>		Log(cells/cm2)	4,39
<i>Average number of bacteria non treated specimen after 24h Ut*</i>		Log(cells/cm2)	2,92

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Test	Method	UM	Result
Average number of bacteria treated specimen after 24h At*		Log(cells/cm2)	<1
Antibacterial activity R*		Log10	3,1
Antibacterial activity R%*		%	99,93

TECHNICAL MANAGER

Dr.ssa Alessandra Carletti
Ordine Nazionale dei Biologi
Albo professionale n. 34638
Sez.A

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U: expanded uncertainty associated with single measurement (P = 95 % - K = 2) - LD: Detection limit (the lowest concentration of analyte detectable) - LQ : Limit of Quantification (the lowest concentration of analyte detected with acceptable precision and accuracy) - R% Recovery % . U - R% - LQ - LD are indicated if required by the Customer . PNN : internal method - ["] Subcontracted test
Reference standards for microbiological food : UNI EN ISO 7218:2013/Cor.1:2014 (counting in single dish and two consecutive dilutions)
waters : ISO 8199:2005; (results expressed with < 4ufc/ml and < 40ufc / g indicate that microorganisms are present but less than the value expressed ; for values between 4-10 cfu / ml , 4-10 ufc/100ml , 40-100 cfu / g the number of microorganisms is estimated)
Results of tests with the legal limits are evaluated taking into account the value of the uncertainty and the rules relating to rounding .
Results of tests with the reference values defined by the Customer shall be assessed taking into account the value of the uncertainty only if requested by the Customer. Non-compliant results are given if requested by the Customer.
This Test Report refers only to the sample tested; the name and description of the sample are declared by the Customer . This test report may only be reproduced in full; partial reproduction must be authorized with written approval by the Laboratory . If the test report is digitally signed , the integrity of the document can be confirmed by checking the validity of the digital signature within the file.
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