



Textilní zkušební ústav, s.p.
Cejl 480/12, 602 00 Brno, Czech Republic
(Textile Testing Institute)

TESTING LABORATORY NO. 1001
accredited according to EN ISO/IEC 17025:2018 by the Czech Accreditation Institute

TEST REPORT

AZL 20/0444-02b

CUSTOMER: CityZen s.r.o.
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Czech Republic

SAMPLE: Fabric DOKO-F
(according to the customer order) Colour: green
Fibre composition: 100% cotton
Mass per unit area: 145 g/m²



SUBJECT OF ASSESSMENT: Determination of antibacterial activity - Agar diffusion plate test

CONDITIONS OF APPLICATION OF THE TEST REPORT:

Test Report contains result of the tests related to the submitted sample only. Sampling has been done by customer. The Report may not be reproduced in the way other than as a complete set. Reproduction of certain parts of the Report is subject to approval of the test laboratory, which has issued it. All information about subcontracted tests results or unaccredited test methods is presented in text part of the test report. This Report is a literal translation of the Czech version.

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PROCEDURE OF ASSESSMENT:

Textile fabrics - Determination of antibacterial activity - Agar diffusion plate test
was determined according to EN ISO 20645.

Used bacteria (cultures delivered from Czech collection of Microorganisms):

CCM 8853	<i>Klebsiella pneumoniae</i>
CCM 4516	<i>Staphylococcus aureus</i>

Conditions of assessment:

- diameter of test specimen: Ø 25 mm
- number of samples: (4 + 4) treated samples, (4 + 4) untreated references
- storage of the specimens prior to the test: at room temperature in sterilized Petri dishes
- temperature in incubator: (37 ± 1) °C
- influence time: 24 h

The bacterial growth in the nutrient medium under the test specimen was assessed according to following table:

Mean value of inhibition zone (mm)	Growth	Assessment
> 1	none	good effect
1 - 0	none	
0	none	
0	slight	limit of efficacy
0	moderate	insufficient effect
0	heavy	

Result: Assessment of bacterial growth in the nutrient medium under the test specimen with corresponding assessment.





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Pretreatment of the test specimen

was carried out according to EN ISO 6330

- number of washing cycles: 10x, 20x
- washing machine: type A (FOM-71MP, produced by Electrolux-Wascator)
- method: 3N (30±3) °C
- detergent: type 3 (ECE), detergent dose: 20 g.l⁻¹
- drying: C – horizontal position
- temperature of ironing: 200 °C

Resistance to surface wetting (spray test) of fabrics

was determined according to the EN ISO 4920

- conditioning: temperature (20±2) °C; relative humidity (65±4) %
- standard atmosphere for testing: temperature 20 °C; relative humidity 66 %
- temperature of water: 20 °C
- number of tested specimens: 3 for each testing

Result: average degree of wetting, original + after washing (number of washing cycles: 10x, 20x)

TEST RESULTS:

Fabric DOKO-F						
Colour: green						
Fibre composition: 100% cotton						
Mass per unit area: 145 g/m ²						
Characteristics	Test method	Measuring unit	Growth			Assessment
Determination of antibacterial activity - Agar diffusion plate test	EN ISO 20645	Growth	<i>K. pneumoniae</i>	face side	none (IZ = 11 mm)	good effect
				reverse side	none (IZ = 11 mm)	good effect
			<i>S. aureus</i>	face side	none (IZ = 6 mm)	good effect
				reverse side	none (IZ = 6 mm)	good effect

IZ ... inhibition zone





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Reference material: 100% cotton						
Characteristics	Test method	Measuring unit	Growth			Assessment
Determination of antibacterial activity - Agar diffusion plate test	EN ISO 20645	Growth	<i>K. pneumoniae</i>	face side	heavy (IZ = 0 mm)	insufficient effect
				reverse side	heavy (IZ = 0 mm)	insufficient effect
			<i>S. aureus</i>	face side	heavy (IZ = 0 mm)	insufficient effect
				reverse side	heavy (IZ = 0 mm)	insufficient effect

IZ ... inhibition zone

Fabric DOKO-F – face side Colour: green Fibre composition: 100% cotton Mass per unit area: 145 g/m ²			
Characteristics	Test method	Measuring unit	Growth
Resistance to surface wetting (spray test) of fabrics .original .after washing (10x, 30 °C) .after washing (20x, 30 °C)	ČSN EN ISO 4920	stupeň	3-4 1-2 1

Approved:


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