



EKOTEKS

**EKOTEKS LABORATUVAR ve GÖZETİM
HİZMETLERİ A.Ş.**
Esenyurt Firuzköy Bulvarı No:29 34325 Avcılar
İstanbul/ TÜRKİYE



TEST REPORT
DENEY RAPORU

AB-0583-T

20013633

05-20

Customer name: ARITEKS BOYACILIK TİCARET VE SAN. A.Ş.
Address: Hacı Şeremet 4. Sok. 59850 YULAFLI/ ÇORLU/ TEKİRDAĞ
Buyer name: -
Contact Person: ÖZGÜR KUŞKU
Order No: -
Article No: ArPowerKnit P-5938
Name and identity of test item: One sample of black knitted fabric. (Black)
The date of receipt of test item: 27.04.2020
Re-submitted/re-confirmation date: -
Date of test: 27.04.2020-18.05.2020
Remarks: -
Sampling: The results given in this report belong to the received sample by vendor.
End-Use: -
Care Label: Not specified.

Number of pages of the report: 6

The Turkish Accreditation Agency (TURKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation (EA) and of the International Laboratory Accreditation (ILAC) for the Mutual recognition of test reports.

EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş. accredited by TÜRKAK under registration number [AB-0583-T] for ISO 17025:2017 as test laboratory.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Seal

Date
18.05.2020

Customer Representative
Özlem ULUS

Head of Testing Laboratory
Sevim A. RAZAK
18.05.2020

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REQUIRED TESTS	RESULT	COMMENTS
MICROBIOLOGICAL TESTS		
Antibacterial Activity/ Original <i>Staphylococcus aureus</i>	-	
Antibacterial Activity/ After 20 washes <i>Staphylococcus aureus</i>	-	
Antibacterial Activity /Original <i>Esherichia coli</i>	-	
Antibacterial Activity / After 20 washes <i>Esherichia coli</i>	-	
No requirements were given by vendor.		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified. If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %. Tests marked (*) in this report are not included in the accreditation schedule.



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TEST RESULTS

Test Method :**ASTM E2149:2013a** Standard Test Method for Determining the Antimicrobial Activity of Antimicrobial Agents Under Dynamic Contact Conditions

RESULTS	
Inoculum Control	Treated (Test) Sample
after specified contact time*	after specified contact time*
5x10 ⁵ cfu/ml	<30 cfu/ml
5.70 log	-

*The amount of growing bacteria on fabric
cfu: colony forming units

Antimicrobial Activity	RESULT	Evaluation
Reduction, %	>% 99.99 Effective	-

Mikroorganism	<i>Staphylococcus aureus</i> (ATCC 6538 (Gram(+)))
Bacterial concentration (cfu/ ml)	1.9 x10 ⁵
Inoculum volume	50 ml
Size of sample	1g
Number of washing	-
Washing method	-
Incubation time, temperature	24 hours, 35°C ± 2°C
Contact time	24 hours

R %= Reduction is calculated by the following formula;

$$\%R = \frac{(B-A)}{B} \times 100$$

A = CFU per millilitre for the flask containing the treated substrate after the specified contact time.

B= CFU per millilitre for the 'inoculum only' flask after the specified contact time.

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after specified contact time*	after specified contact time*
5x10 ⁵ cfu/ml	<30 cfu/ml
5.70 log	-

*The amount of growing bacteria on fabric
cfu: colony forming units

Antimicrobial Activity	RESULT	Evaluation
Reduction, %	>% 99.99 Effective	-

Mikroorganism	<i>Staphylococcus aureus</i> (ATCC 6538 (Gram(+)))
Bacterial concentration (cfu/ ml)	1.9 x10 ⁵
Inoculum volume	50 ml
Size of sample	1g
Number of washing	20
Washing method	3N@ 30 °C/ Flat Dry
Incubation time, temperature	24 hours, 35 °C ± 2 °C
Contact time	24 hours

R %= Reduction is calculated by the following formula;

$$\%R = ((B-A)/B) \times 100$$

A = CFU per millilitre for the flask containing the treated substrate after the specified contact time.

B= CFU per millilitre for the 'inoculum only' flask after the specified contact time.

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TEST RESULTS

Test Method :**ASTM E2149:2013a** Standard Test Method for Determining the Antimicrobial Activity of Antimicrobial Agents Under Dynamic Contact Conditions

RESULTS	
Inoculum Control	Treated (Test) Sample
after specified contact time*	after specified contact time*
6×10^6 cfu/ml	2.7×10^3 cfu/ml
6.78 log	3.43 log

*The amount of growing bacteria on fabric
cfu: colony forming units

Antimicrobial Activity	RESULT	Evaluation
Reduction, %	% 99.96 Effective	-

Mikroorganism	<i>Escherichia coli</i> (ATCC 25922 (Gram(-)))
Bacterial concentration (cfu/ ml)	1.5×10^5
Inoculum volume	50 ml
Size of sample	1g
Number of washing	-
Washing method	-
Incubation time, temperature	24 hours, $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Contact time	24 hours

R %= Reduction is calculated by the following formula;

$$\%R = ((B-A)/B) \times 100$$

A = CFU per millilitre for the flask containing the treated substrate after the specified contact time.

B= CFU per millilitre for the 'inoculum only' flask after the specified contact time.