



EKOTEKS

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Test
TS EN ISO/IEC 17025
AB-0583-T

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

TEST REPORT
DENEY RAPORU

AB-0583-T

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03-15

Customer name: MONO ELEKTRİK MALZ. SAN. VE DIŞ TİC. LTD ŞTİ.
Address: Akpınar Sanayi Bölgesi Yassıören Köyü hadımköy Caddesi No:162
İSTANBUL
Buyer name: -
Contact Person: SERDAR TELLİ
Order No: -
Article No: -
Name and identity of test item: One sample of white material.
The date of receipt of test item: 10.03.2015
Date of test: 10.03.2015-23.03.2015
Remarks:
Sampling: The results given in this report belong to the received sample by vendor.
End-Use: Switch plug
Care Label: Not Given
Number of pages of the report: 4

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.

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
26.03.2015

Person in charge of test
Behiye ŞAŞMAZ

Head of Testing Laboratory
Sevim A. RAZAK

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REQUIRED TESTS	RESULT	COMMENTS
MICROBIOLOGICAL TESTS		
Antibacterial Activity (<i>Staphylococcus aureus</i> ATCC 6538 P(Gram(+)) ⁽¹⁾)	-	
Antibacterial Activity (<i>Escherichia Coli</i> ATCC 8739 Gram (-)) ⁽¹⁾	-	
⁽¹⁾ The size of sample is not proper for this test. Test was performed due to vendor's request. No requirements were given.		

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified. 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

ANTIBACTERIAL ACTIVITY : JIS Z 2801:2012

Microorganism	<i>Staphylococcus aureus</i> ATCC 6538 P(Gram(+))
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Sample	Bacteria growth (cfu / cm ²)		Logarithmic Reduction Log (cfu / cm ²)	
	Contact Time (0 h)	After Incubation (24s, 35° C)	Log (U _o)	Log (U _t)
Untreated sample	3.75x10 ³	1 x10 ⁷	3.57	7

Sample	Result (cfu / cm ²)	Logarithmic Reduction Log (cfu / cm ²)
	After Incubation (24s, 35° C)	Log (A _t)
Treated Sample	1.38 x10 ⁷	7.13

Log (R)=B-C	R=-
	Non Effective

Measuring method of number of living bacteria	Plate Count method
Type of sample material	Board
Size of sample	5x5 cm ² /Thickness > 10 mm
Inoculum volume	400 µl
Incubation conditions	24 h, 37 ± 1°C, Min % 90 RH
The number of bacteria in the test inoculum (kob/ml)	4.8 x10 ⁵

According to the below formula, calculate the growth value of microorganism on the test material.

$$R = (U_t - U_o) - (A_t - U_o) = U_t - A_t$$

$$\text{Log} (R) = U_t - A_t$$

R: Is the antibacterial activity.

U_o: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimens immediately after inoculation.

U_t: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimens 24 h.

A_t: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the treated test specimens after 24 h.

Note: According to JIS Z 2801:2012 method, the value of Antibacterial Activity which is R, must equal or bigger than 2.

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TEST RESULTS

ANTIBACTERIAL ACTIVITY : JIS Z 2801:2012

Microorganism	<i>Escherichia coli</i> ATCC 8739 Gram (-)
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Sample	Bacteria growth (cfu / cm ²)		Logarithmic Reduction Log (cfu / cm ²)	
	Contact Time (0 h)	After Incubation (24s, 35° C)	Log (U ₀)	Log (U _t)
Untreated sample	5x10 ³	1.13 x10 ⁷	3.69	7.05

Sample	Result (cfu / cm ²)	Logarithmic Reduction Log (cfu / cm ²)
	After Incubation (24s, 35° C)	Log (A _t)
Treated Sample	1.26 x10 ⁷	7.09

Log (R)=B-C	R=-
	Non Effective

Measuring method of number of living bacteria	Plate Count method
Type of sample material	Board
Size of sample	5x5 cm ² /Thickness > 10 mm
Inoculum volume	400 µl
Incubation conditions	24 h, 37 ± 1°C, Min % 90 RH
The number of bacteria in the test inoculum (kob/ml)	4.4 x10 ⁵

According to the below formula, calculate the growth value of microorganism on the test material.

$$R = (U_t - U_o) - (A_t - U_o) = U_t - A_t$$

$$\text{Log (R)} = U_t - A_t$$

R: Is the antibacterial activity.

U₀: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimens immediately after inoculation.

U_t: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the untreated test specimens 24 h.

A_t: Is the average of the common logarithm of the number of viable bacteria, in cell/cm², recovered from the treated test specimens after 24 h.

Note: According to JIS Z 2801:2012 method, the value of Antibacterial Activity which is R, must equal or bigger than 2.