

TEST REPORT

Applicant: MID OCEAN BRANDS BV
7/F, KINGS TOWER,
111 KING LAM STREET,
CHEUNG SHA WAN,
KOWLOON
HK
Attn: GARY YUEN

Number: HKGH02641505

Date: Oct 09, 2020

Submitted sample said to be :
Item Name : **anti-bacterial pen**
Model No. : **MO6153**
Quantity : 1 Bag per style
Vendor : 104901
Country of Origin : China



Conclusion:

The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

<u>Requirement</u>	<u>Result</u>
(1) ISO 22196:2011 - Measurement of antibacterial activity on plastics and other non-porous surfaces	See details enclosed

Decision Rule(s):

When a statement of conformity to a specification or standard is provided on test report, the decision rule shall be applied. For details, please refer to Intertek's "Decision Rule Document" and is available on Intertek's website. <https://intertekhk.grd.by/decision-rule-doc>.
If decision rule already in hered in the requested specification or standard, Intertek's "Decision Rule Document" is not applicable and indication of "∞" was shown as above table.

For and on behalf of :
Intertek Testing Services HK Ltd.

Cindy I.K. Chan
Vice President



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(1) Measurement of antibacterial activity on plastics and other non-porous surfaces

Test Standard : International Standard ISO 22196:2011.

Test culture: *Escherichia coli* (ATCC 8739) - 1.0×10^6 CFU/mL
Staphylococcus aureus (ATCC 6538P) - 7.6×10^5 CFU/mL

Test specimen: 50 mm x 50 mm flat square of submitted sample
 50 mm x 50 mm flat square of untreated sample as control

Neutralizing solution: D/E neutralizing broth

Contact time / temperature: 24 hours / 35°C

Agar medium: Plate Count Agar

Incubation period / temperature of agar: 48 hours / 35°C

Test condition: 0.4 mL bacterial inoculum was added onto face side of the treated sample and back side of the untreated sample

Result :

Test microorganism	U_o Criteria: $3.7 \leq U_o \leq 4.4$	U_t Criteria: $U_t \geq 1.8$	A_t	Log R	% R	Comment*
<i>Escherichia coli</i>	4.3	3.2	0	3.2	99.9	Significant
<i>Staphylococcus aureus</i>	4.1	2.6	0	2.6	99.7	Significant



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Remark : U_0 = Log (bacteria recovered from untreated specimen in CFU/cm²) immediately after inoculation
 U_t = Log (bacteria recovered from untreated specimen in CFU/cm²) after 24 hours incubation
 A_t = Log (bacteria recovered from treated specimen in CFU/cm²) after 24 hours incubation
R = Log reduction value ($U_t - A_t$)

Reference Rating*:	%R	Antibacterial activity
	≤90%	Not acceptable
	>90 - <99%	Insignificant
	≥99%	Significant

Sample received condition: Samples in closed plastic bags.

Date sample received : Sep 24, 2020

Testing period : Sep 28, 2020 to Oct 07, 2020

End of report

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The observations and test results in this report are relevant to the sample(s) tested and submitted by client. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. This report does not discharge or release you from your legal obligations and duties to any other person. Only the Client is authorized to permit copying or distribution of this report and the report shall not be reproduced except in full. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

