



Test Report

No.: SHHL2011552049OT

Date: NOV. 19, 2020

Page: 1 of 6

MID OCEAN BRANDS BV

7/F KINGS TOWER 111 KING LAM STREET CHEUNG SHA WAN KOWLOON HK

THIS TEST RESULT IS COPIED FROM THE TEST REPORT No.: SHHL2011552048OT,
DATE: NOV. 17, 2020.

Sample Description : ANTI-BACTERIAL PEN
Style No : MO6143
Manufacturer :
Supplier :

Sample Receiving Date : NOV. 04, 2020
Testing Period : NOV. 04, 2020 TO NOV. 19, 2020
Test Performed : SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Requested : SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Result(s) : FOR FURTHER DETAILS, PLEASE REFER TO THE
FOLLOWING PAGE(S)
Conclusion : THE TEST DATA WERE PROVIDED TO CLIENT FOR
THEIR OWN ANALYSIS.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Melody Zhang
Authorized Signatory



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Test Conducted:

Sample Description :

Specimen No.	SGS Sample ID	Description
1	ASH20-068330.001	sample in bag

Test Result(s) :

Test Requested : Test of antimicrobial activity

Test Method : ISO 22196:2011 Measurement of antibacterial activity on plastics and other non-porous surfaces

ASH20-068330.001

Test organism(s)	Escherichia coli ATCC 8739	Staphylococcus aureus ATCC 6538P
Concentration of bacteria (cells/mL)	8.5x10 ⁵	8.8x10 ⁵
Volume of test inoculum (mL)	0.4	0.4
U ₀	4.33	4.33
U _t	6.42	5.66
A _t	1.37	1.61
B (cells/cm ²)	2.6x10 ⁶	4.6x10 ⁵
C (cells/cm ²)	24	41
R	5.1	4.1
*The antibacterial activity rate (%)	>99.9	>99.9



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Notes :

- 1.The control sample is plastic film without antimicrobial activity, provided by SGS laboratory.
- 2.U₀: the average of the common logarithm of the number of viable bacteria(cells/cm²) recovered from the untreated test specimens immediately after inoculation.
- 3.U_t: the average of the common logarithm of the number of viable bacteria(cells/cm²) recovered from the untreated test specimens after 24 h.
- 4.A_t: the average of the common logarithm of the number of viable bacteria(cells/cm²) recovered from the treated test specimens after 24 h.
- 5.R: the value of antimicrobial activity,R=U_t-A_t.
- 6.* The calculation formula of the antibacterial activity rate is **【(B-C)/B】 *100%**;
B: arithmetic average of the numbers of bacteria obtained from control samples after 24 h incubation(cells/cm²);
C: arithmetic average of the numbers of bacteria obtained from samples after 24 h incubation(cells/cm²).
- 7.Pre-treatment: The surface of test specimen was wiped with 70% ethanol, rinsed with sterile water and let it air-dry.
- 8.Test the any surface.



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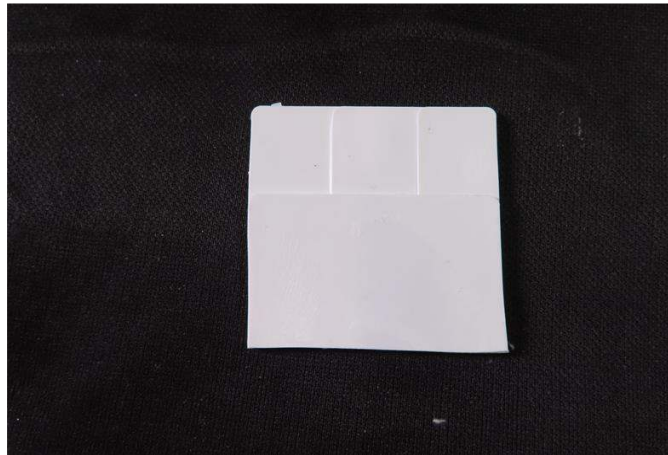
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Sample photo:



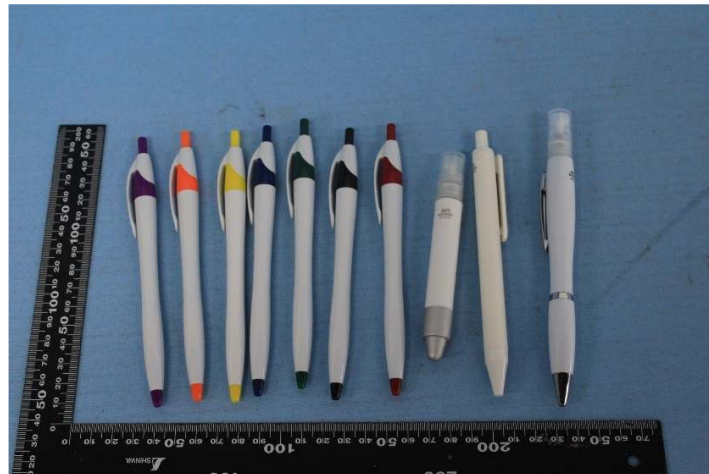
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