

Test Report

Report No.: GZAFN1812021864S001

Date: Dec 18 2018

Client name: Microarmor Antimicrobail Co., Ltd.
Client address: Paoli industrial Park, Yuanzhou town, Huizhou city, China
Sample name: Antibacterial ABS
Sample Batch No.: /
Product Date: /
Manufacturer: /
Sample other information: Addition of Microarmor Antimicrobial Agent

Above sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.

SGS Sample No.: GZAFN1812021864S.001
SGS reference No.: /
Date of sample received: Dec. 07, 2018
Testing period: Dec. 07, 2018 ~ Dec. 17, 2018

TEST(S) REQUESTED:

Selected test(s) as requested by the applicant

TEST METHOD(S):

Please refer to next page(s)

TEST RESULT(S):

Please refer to next page(s)

This test report has been drafted in English and maybe translated into other languages, The English version shall prevail.

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch



SGS Authorized Signature
胡楷崎 Catherine Hu

This test report refers only to the sample(s) tested. This document cannot be used for publicity, without prior written approval of the SGS.



TEST RESULT(S):

Test of antimicrobial activity

Test method: With reference to ISO 22196:2011

Test organisms: *Escherichia coli* ATCC 8739, *Staphylococcus aureus* ATCC 6538P, *Klebsiella pneumoniae* ATCC 4352

Test Organism(s)	Concentration of bacteria (cfu/mL)	Volume of test inoculum (mL)	The log value of the number(cfu/cm ²) that bacteria recovered from the different contact time			The value of antimicrobial activity
			/	at "0h" contact time	at "24h" contact time	
<i>Escherichia coli</i> ATCC 8739	1.5×10 ⁶	0.2	Sample	/	1.97	3.7
			Control Sample	4.18	5.65	
<i>Staphylococcus aureus</i> ATCC 6538P	1.3×10 ⁶	0.2	Sample	/	2.08	3.8
			Control Sample	4.11	5.88	
<i>Klebsiella pneumoniae</i> ATCC 4352	1.6×10 ⁶	0.2	Sample	/	3.04	2.5
			Control Sample	4.20	5.56	

Remark: The control sample is plastic film without antimicrobial activity, provided by SGS laboratory.

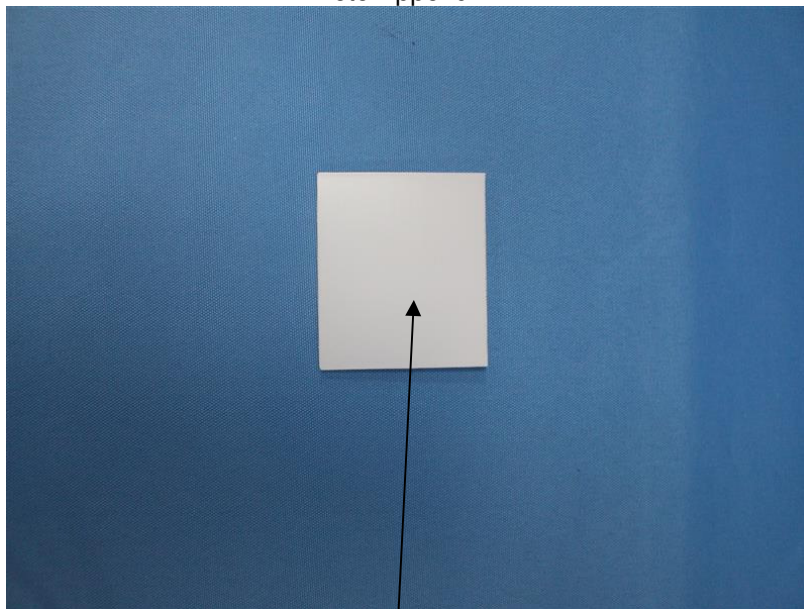


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SAMPLE DESCRIPTION: Block sample

Photo Appendix



Test side

SGS authenticate the photo on original report only

*** End of Report***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com