

## Test Report

Date: 01 Jun 2020

Client Name:

Client Address:

Sample Name: Plastic granule  
Manufacturer: LIZHAO  
Sample Batch No.: /  
Production Date: /  
Model No.: AG3  
Sample specification: PA66+GF15

Above information and 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 Reference No.: SHAT2005011415OH  
Date of Sample Received: 12 May 2020  
Testing Period: 12 May 2020 - 01 Jun 2020  
Test Requested: Selected test(s) as requested by client.  
Test Method: Please refer to next page(s).  
Test Result(s): Please refer to next page(s).

This Test Report supersedes the Test Report No. ASH20-022318-01 issued by SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. Original test report will be invalid from today.

Unless otherwise stated the results shown in this test report refer only to the items tested, and for clients internal use only, not to the society has the proof function. This document cannot be used for publicity, without prior written approval of the SGS.



SGS Authorized Signature

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## Test Report

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Sample Description :

| Specimen No. | SGS Sample ID    | Description   |
|--------------|------------------|---------------|
| 1            | ASH20-022318.001 | 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

### ASH20-022318.001

| Test organism                        | Escherichia coli ATCC 8739 | Staphylococcus aureus ATCC 6538P |
|--------------------------------------|----------------------------|----------------------------------|
| Concentration of bacteria (CFU/mL)   | 8.2x10 <sup>5</sup>        | 8.7x10 <sup>5</sup>              |
| Volume of test inoculum (mL)         | 0.4                        | 0.4                              |
| U <sub>0</sub>                       | 4.28                       | 4.92                             |
| U <sub>t</sub>                       | 6.04                       | 6.56                             |
| A <sub>t</sub>                       | -0.20                      | -0.20                            |
| R                                    | 6.2                        | 6.8                              |
| *The antibacterial activity rate (%) | >99.9                      | >99.9                            |

### Notes :

- 1.The control sample is plastic film without antimicrobial activity, provided by SGS laboratory.
- 2.U<sub>0</sub>: the average of the common logarithm of the number of viable bacteria(CFU/cm<sup>2</sup>) recovered from the untreated test specimens immediately after inoculation.
- 3.U<sub>t</sub>: the average of the common logarithm of the number of viable bacteria(CFU/cm<sup>2</sup>) recovered from the untreated test specimens after 24 h.
- 4.A<sub>t</sub>: the average of the common logarithm of the number of viable bacteria(CFU/cm<sup>2</sup>) recovered from the treated test specimens after 24 h.
- 5.R: the value of antimicrobial activity,R=U<sub>t</sub>-A<sub>t</sub>.
- 6.\* The calculation formula of the antibacterial activity rate is provided by the client, the calculation formula is  $[(B-C)/B] \times 100\%$ ;  
B: arithmetic average of the numbers of bacteria obtained from control samples after 24 h incubation(CFU/cm<sup>2</sup>);  
C: arithmetic average of the numbers of bacteria obtained from samples after 24 h incubation(CFU/cm<sup>2</sup>).
- 7.Test the wordless side.

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Sample photo:



SGS authenticate the photo on original report only

\*\*\* End \*\*\*



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