

TEST REPORT

No. : XMIN2011010855CM

Date : Nov 22, 2020

Page: 1 of 3



CUSTOMER NAME: HEBEI LUJU PLASTIC PRODUCTS CO.,LTD
 ADDRESS: CHENGdong ECONOMIC DEVELOPMENT ZONE, XIONGXIAN COUNTY,
 BAODING CITY, HEBEI PROVINCE

Sample Name : MULTILAERED FLOORING

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

SGS Ref. No. : GZF20-024246-01
 Date of Receipt : Nov 06, 2020
 Testing Start Date : Nov 06, 2020
 Testing End Date : Nov 20, 2020
 Test result(s) : For further details, please refer to the following page(s)
 (Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
 SGS-CSTC Standards Technical
 Services Co. , Ltd Xiamen Branch
 Testing Center

Bryan Hong
 Authorized signatory



SGS-CSTC Standards Technical Services Co., Ltd.
 Xiamen Branch Testing Center Commercial Construction Material Laboratory

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Sample Description : See Photo

Test Requested : Test of antimicrobial activity

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

Test Result(s) :

Test organism(s)	Escherichia coli ATCC 8739	Staphylococcus aureus ATCC 6538P
Concentration of bacteria (cells/mL)	8.3x10 ⁵	6.7x10 ⁵
Volume of test inoculum (mL)	0.2	0.2
U□	4.00	3.97
Ut	5.34	5.67
At	4.19	4.32
B (cells/cm ²)	2.2x10 ⁵	4.7x10 ⁵
C (cells/cm ²)	1.6x10 ⁴	2.1x10 ⁴
R	1.2	1.4
*The antibacterial activity rate (%)	92.7	95.5

Notes :

- 1.The control sample is plastic film without antimicrobial activity, provided by SGS laboratory.
- 2.U□: the average of the common logarithm of the number of viable bacteria(cells/cm²) recovered from the untreated test specimens immediately after inoculation.
- 3.Ut: the average of the common logarithm of the number of viable bacteria(cells/cm²) recovered from the untreated test specimens after 24 h.
- 4.At: 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=Ut-At.
- 6.* The calculation formula of the antibacterial activity rate is $[(B-C)/B] \times 100\%$;
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.



SGS-CSTC Xiamen Branch Testing Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

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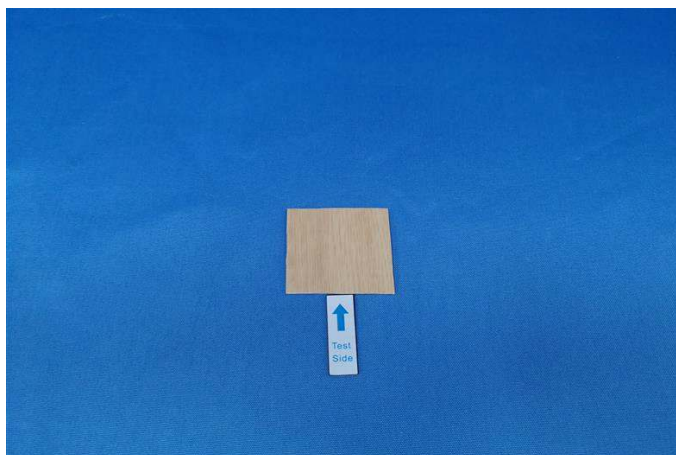
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Sample photo:



Note: The above test was carried out by SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch.
***** End of report*****



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