

Test Report

GZF22-027612-02

Date: 23 Sep 2022

Client Name: CHANGZHOU SUN PLUS LAMINATE CO.,LTD

Client Address: No.16 wuqing road, weixing industry, henglin town, Changzhou, china

Sample Name: top fire resistant phenolic board(fire resistant board)
Manufacturer: /
Sample Batch No.: /
Production Date: /

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.: /
Date of Sample Received: 12 Aug 2022
Testing Period: 12 Aug 2022 - 23 Sep 2022
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).

Chinese shall prevail in this report.

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 improper publicity, without prior written approval of the SGS.



scan to see the report



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SGS Authorized Signature

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Guangzhou Branch Testing Laboratory for Agriculture and Food Laboratory

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Member of the SGS Group (SGS SA)

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Sample Description :

| Specimen No. | SGS Sample ID | Description |
|--------------|------------------|--------------|
| 1 | GZF22-027612.001 | Sheet sample |

Test Result(s) :

Test Requested : Antimicrobial activity test

Test Method : ASTM G 21-15(2021) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

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| Test organism(s) | Concentration of spores (spores /mL) | Rating observed growth on specimens (after 28 days) |
|------------------|--------------------------------------|---|
| *Test organism | 1.0x10 ⁶ | 1 Grade |

Notes :

*Test organism

Aspergillus brasiliensis ATCC 9642, Talaromyces pinophilus ATCC 11797, Chaetomium globosum ATCC 6205, Trichoderma virens CICC 2535 (equated to ATCC 9645), Aureobasidium pullulans ATCC 15233

History name of test organism

Aspergillus brasiliensis Historically known as A.niger.

Talaromyces pinophilus Historically known as P.pinophilum.

Trichoderma virens Historically known as Gliocladium virens.

According to ASTM G 21-15(2021) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi, observed fungi growth rating on the specimens include:

0-None

1-Traces of growth (less than 10%)

2-Light growth (10 to 30%)

3-Medium growth (30 to 60%)

4-Heavy growth (60% to complete coverage)

The microscope(50 X) was used to confirm the observation.

Test Requested : Assessment of Antimicrobial activity

Test Method : JIS Z 2801:2010 (COR 1:2011,AMD 1:2012) Antimicrobial products - Test for antimicrobial activity and efficacy(Including modification list COR 1:2011,AMD 1:2012)

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| | | |
|------------------------------------|----------------------------|----------------------------------|
| Test organism(s) | Escherichia coli ATCC 8739 | Staphylococcus aureus ATCC 6538P |
| Concentration of bacteria (CFU/mL) | 3.9x10 ⁵ | 4.4x10 ⁵ |
| Volume of test inoculum (mL) | 0.4 | 0.4 |
| U ₀ | 3.97 | 4.01 |
| U _t | 5.43 | 5.73 |
| At | -0.20 | -0.20 |
| B (CFU/cm ²) | 2.7x10 ⁵ | 5.4x10 ⁵ |
| C (CFU/cm ²) | <0.63 | <0.63 |
| R | 5.6 | 5.9 |
| Antibacterial activity rate (%)* | >99.99 | >99.99 |

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 that recovered from control sample at "0 h" contact time(CFU/cm²).
- 3.U_t: the average of the common logarithm of the number of viable bacteria that recovered from control sample at "24 h" contact time(CFU/cm²).
- 4.At: the average of the common logarithm of the number of viable bacteria that recovered from sample at "24 h" contact time(CFU/cm²).
- 5.R: the value of antimicrobial activity, R=U_t-A_t.
- 6.*The calculation formula of the antibacterial activity rate is $[(B-C)/B] \times 100\%$;
- B: arithmetic average of the numbers of bacteria obtained from control samples after 24 h incubation(CFU/cm²);
- C: arithmetic average of the numbers of bacteria obtained from samples after 24 h incubation(CFU/cm²).
- 7.Pre-treatment: The surface of test specimen was wiped with 70% ethanol, rinsed with sterile water and let it air-dry.
8. The sample size: 4.8cm×4.9cm.

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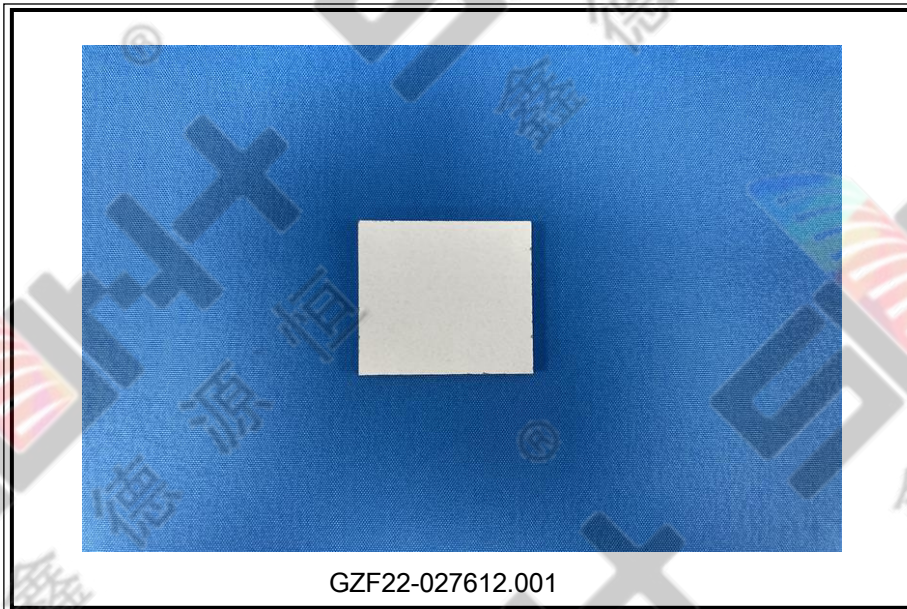
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Sample photo:



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