

## TEST REPORT

No. : GZIN1910057925SC

Date : Dec 09, 2019

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CUSTOMER NAME: K-FLEX MALAYSIA SDN BHD  
ADDRESS: LOT 2752 JALAN RAJA NONG, TAMAN KLANG JAYA, 41200 KLANG,  
SELANGOR D.E., MALAYSIA

Sample Name : CROSS LINKED CLOSED CELL POLYOLEFIN FOAM INSULATION  
Product Specification : K-FLEX K-PROTECT  
Manufacturer : K-FLEX MALAYSIA SDN BHD

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.

\*\*\*\*\*

Date of Receipt : Oct 29, 2019  
Testing Start Date : Oct 29, 2019  
Testing End Date : Dec 09, 2019  
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. GZ Branch Testing  
Center

Quincey lee  
Authorized signatory



SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Testing Center Materials Laboratory

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**TEST RESULT(S):**

Antimicrobial activity test

Test method: With reference to ASTM G 21-15

Test organisms: *Aspergillus brasiliensis*<sup>A</sup> ATCC 9642, *Penicillium funiculosum*<sup>B</sup> ATCC 11797, *Aureobasidium pullulans* ATCC 15233, *Chaetomium globosum* ATCC 6205, *Trichoderma virens*<sup>C</sup> ATCC 9645

Test Fungi	Concentration of spores (spores /mL)	Rating observed growth on specimens (after 28 days)
<i>Aspergillus brasiliensis</i> <sup>A</sup> ATCC 9642	1.0×10 <sup>6</sup>	0 Grade*
<i>Penicillium funiculosum</i> <sup>B</sup> ATCC 11797		
<i>Aureobasidium pullulans</i> ATCC 15233		
<i>Chaetomium globosum</i> ATCC 6205		
<i>Trichoderma virens</i> <sup>C</sup> ATCC 9645		

**Notes:**

1. According to ASTM G 21-15 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)

2. History name of test organism

<sup>A</sup>Historically known as *A.niger*.

<sup>B</sup>Historically known as *P.pinophilum*.

<sup>C</sup>Historically known as *Gliocladium virens*

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



SGS (China) Inspection & Testing Services Co., Ltd  
Guangzhou Branch Testing Center Materials Laboratory

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## TEST REPORT

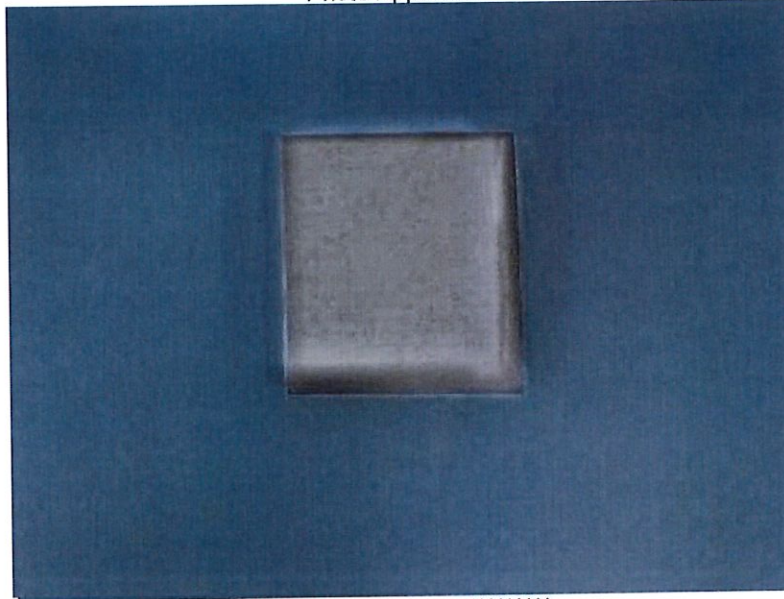
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SAMPLE DESCRIPTION: Block sample

Photo Appendix



\*\*\*\*\* End of report\*\*\*\*\*



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