

## TEST REPORT: 7191221324-CHM19-01-RC

Date: 25 SEP 2019 Tel: +65 68851345 Fax: +65 67732912

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### SUBJECT

Fungus Resistance Test

### CLIENT

PT. LATRADE BATAM INDONESIA  
LATRADE INDUSTRIAL PARK  
BLOCK E NO. 3  
TANJUNG UNCANG  
BATAM 29428  
INDONESIA

Attn: Mr. David Zhang

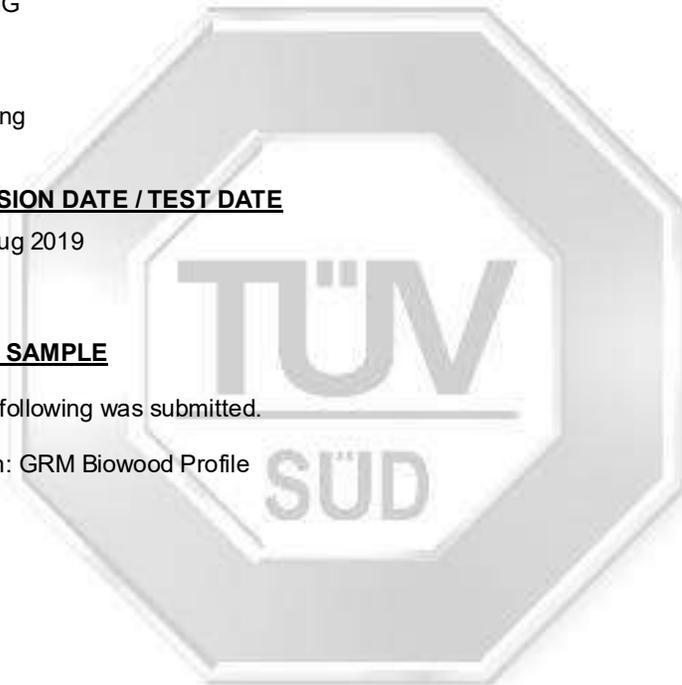
### SAMPLE SUBMISSION DATE / TEST DATE

07 Aug 2019 / 20 Aug 2019

### DESCRIPTION OF SAMPLE

One sample of the following was submitted.

Sample Description: GRM Biowood Profile



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**METHOD OF TEST**

ASTM Designation : G21-15

'Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi'.

1. The test fungi used were :

*Aspergillus niger* (ATCC 9642)  
*Penicillium pinophilum* (ATCC 11797)  
*Chaetomium globosum* (ATCC 6205)  
*Gliocladium virens* (ATCC 9645)  
*Aureobasidium pullulans* (ATCC 15233)

2. Three test specimens were prepared for the tests. Both sides of the test specimen were tested.
3. Incubation condition: 28-30°C for 28 days at 95% relative humidity.
4. Viability controls were prepared using three pieces of sterilized filter paper (25mm by 25mm) on solidified nutrient-salts agar in separate petri dishes inoculated with the test fungi and incubated at the same conditions as the test specimens for 14 days.
5. Based on the standard, the test may be terminated in less than 28 days for samples exhibiting a growth rating of 2 or more.
6. The extent of fungal growth on the incubated test specimens were rated in accordance to the test method as follows :

Observed growth on specimens	Rating
None	0
Traces of growth (less than 10%)	1
Light growth (10 - 30%)	2
Moderate growth (30 - 60%)	3
Heavy growth (60% to complete coverage)	4



**RESULTS**

Inoculated test-specimens	Rating of fungal growth on test-specimens at the end of incubation period
<u>Sample: GRM Biowood Profile</u>	
# 1	0 (No growth)
# 2	0 (No growth)
# 3	0 (No growth)
<u>Viability controls</u>	
# 1	4
# 2	4
# 3	4

Remarks :

The above test results related to the samples as received.

**MS AW HWEE YING**  
HIGHER TECHNICAL EXECUTIVE

**MR RANDY CHIN KOK FEI**  
PRODUCT MANAGER  
MICROBIOLOGY  
CHEMICAL & MATERIALS

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PSB Singapore

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July 2011

