

TEST REPORT: 7191244814-CHM20-02B-LHS

Date: 06 OCT 2020

Tel: +65 68851335 Fax: +65 67784301

Client's Ref: -

Email: Sihai.LI@tuv sud.com

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

Add value.
Inspire trust.

SUBJECT

Synthetic Blood Penetration Test

CLIENT

Granttech Pte Ltd
629 Aljunied Road, #04-17
Cititech Industrial Building,
Singapore 389838

Attn: Peter Chong It Kong

SAMPLE SUBMISSION DATE / TEST DATE

22 Sep 2020 / 29 Sep 2020

DESCRIPTION OF SAMPLE

One face mask sample described as below was received:

Product Name / Brand Name	Manufacturer	Lot No.
GRANZILLA AIRCARE 3 Ply Disposable Face Mask	Granttech Pte Ltd	Test Sample



TÜV SÜD PSB

Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

Phone : +65-6885 1333
Fax : +65-6776 8670
E-mail: enquiries@tuv sud.com
www.tuv sud.com/en-sg
Co. Reg : 199002667R

Regional Head Office:
TÜV SÜD Asia Pacific Pte. Ltd.
1 Science Park Drive, #02-01
Singapore 118221
TUV[®]

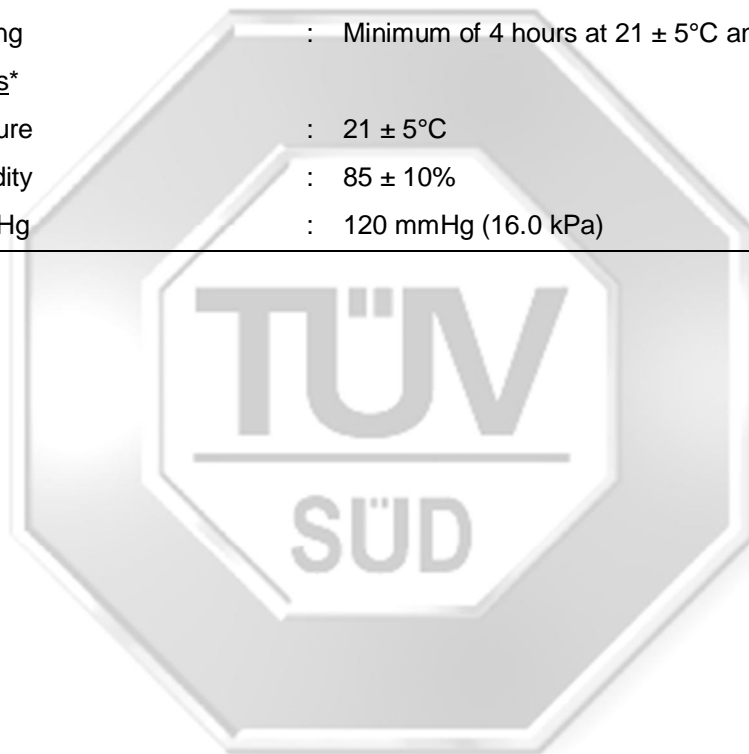


METHOD OF TEST

- 1) BS EN 14683:2019
"Medical face masks - Requirements and test methods"
Clause 5.2.4 - Splash resistance

- 2) ISO 22609:2004(E)
"Clothing for protection against infectious agents - Medical face masks - Test method for resistance against penetration by synthetic blood (fixed volume, horizontally projected)"

Distance of mask to the tip of cannula	: 30.5 cm
Test volume	: 2 mL
Test side	: Outside
Pre-conditioning	: Minimum of 4 hours at $21 \pm 5^{\circ}\text{C}$ and $85 \pm 5\%$ r.h.
<u>Test conditions*</u>	
Test temperature	: $21 \pm 5^{\circ}\text{C}$
Relative humidity	: $85 \pm 10\%$
Pressure, mmHg	: 120 mmHg (16.0 kPa)



TEST REPORT: 7191244814-CHM20-02B-LHS

06 OCT 2020



PSB Singapore

RESULTS

Test article number	Results	BS EN 14683:2019 Table 1 Type IIR Requirement
1	Passed	≥ 16.0 kPa ¹
2	Passed	
3	Passed	
4	Passed	
5	Passed	
6	Passed	
7	Passed	
8	Passed	
9	Passed	
10	Passed	
11	Passed	
12	Passed	
13	Passed	
14	Passed	
15	Passed	
16	Failed	
17	Passed	
18	Passed	
19	Passed	
20	Passed	
21	Passed	
22	Passed	
23	Passed	
24	Passed	
25	Passed	
26	Passed	
27	Passed	
28	Passed	
29	Passed	
30	Passed	
31	Failed	
32	Passed	
No. of passed	30 / 32	

Remark: ⁽¹⁾ As per ISO 22609:2004, an acceptable quality limit of 4.0% is met for a single sampling plan when 29 or more of the 32 tested specimens showed pass results.

Note: Samples were randomly selected and identified for testing.

: (*) Test was conducted within 1 minute of removal from the environmental chamber held at pre-conditioning environment.

A handwritten signature in black ink, appearing to read 'Lims'.

LIM HUI SIN
CHEMIST

A handwritten signature in black ink, appearing to read 'Li Sihai'.

for **DR LI SIHAI**
AVP / SENIOR CHEMIST
COATINGS & INDUSTRIAL CHEMICALS
CHEMICAL & MATERIALS

APPENDIX



Figure 1. "GRANZILLA AIRCARE 3 Ply Disposable Face Mask" sample as received.



TEST REPORT: 7191244814-CHM20-02B-LHS

06 OCT 2020



PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.
6. The tests carried out by TÜV SÜD PSB and this report are subject to TÜV SÜD PSB's General Terms and Conditions of Business and the Testing and Certification Regulations of the TÜV SÜD Group.

Effective 01 September 2020

