

Test Report No. 7191244814-EEC20-03B-WBH
dated 02 Oct 2020



PSB Singapore

**Add value.
Inspire trust.**

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.

SUBJECT

Breathability Test (Differential Pressure)

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 / 01 Oct 2020

DESCRIPTION OF SAMPLES

One sample described as below was received:

Product Name / Brand Name	Manufacturer	Lot Number
GRANZILLA AIRCARE 3 Ply Disposable Face Mask	Granttech Pte Ltd	Test Sample



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

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

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

DESCRIPTION OF SAMPLE (cont'd)



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

METHOD OF TEST:

BS EN 14683:2019 Medical face masks – Requirements and test methods
-Clause 5.2.3 Breathability / Annex C Method for determination of breathability (differential pressure)

Airflow: 8 L/min
Tested area: 4.9 cm²
Number of tested specimen: 5
Number of test area per specimen: 5

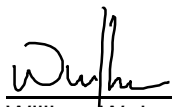
RESULTS

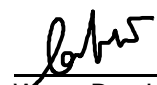
Sample Description: GRANZILLA AIRCARE 3 Ply Disposable Face Mask

Test Specimen	Average Differential Pressure (ΔP) for tested areas (Pa/cm ²)	Requirement
1	35	The Differential Pressure of the medical face mask shall conform to the value given for the relevant type in Table 1 of BS EN 14683:2019. Type I < 40 Pa/cm ² Type II < 40 Pa/cm ² Type IIR < 60 Pa/cm ²
2	36	
3	36	
4	34	
5	37	

REMARKS

1. The above test results relate to the samples as received.
2. For the classification of medical face mask type, besides the above Differential Pressure test, other test parameters per Table 1 of BS EN 14683:2019 shall be considered.

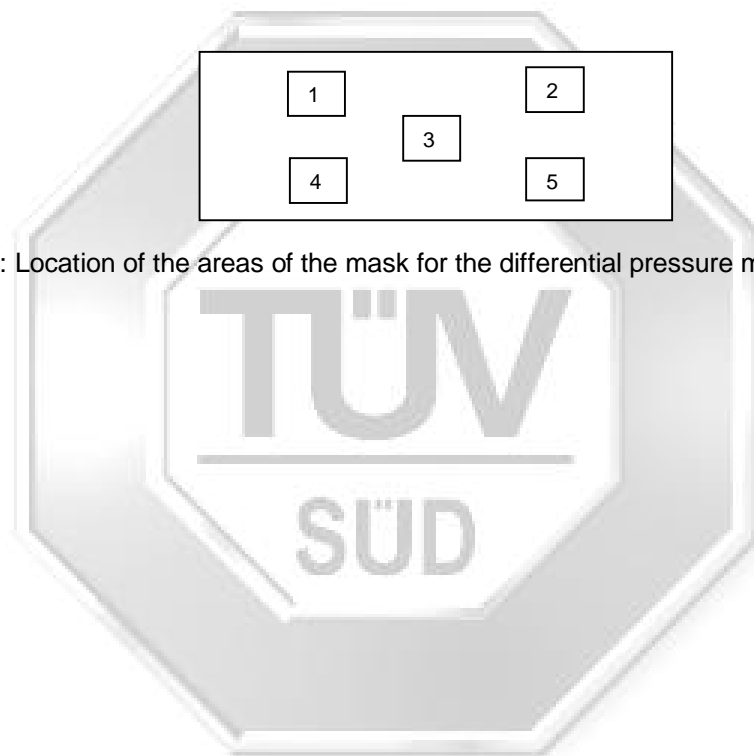

William Wei
Associate Engineer


Wong Bee Hui
Product Manager
Medical Health Services (NAM)

APPENDIX

Test areas	Differential Pressure (ΔP) (Pa/cm ²)				
	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
1	38	39	39	37	40
2	34	37	34	33	37
3	37	37	37	34	37
4	35	33	36	31	33
5	33	36	35	33	36
Average	35	36	36	34	37

Table: Differential pressure for each tested area of the test specimen



Graph: Location of the areas of the mask for the differential pressure measurements

Test Report No. 7191244814-EEC20-03B-WBH
dated 02 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

