

Test Report No. 7191240725-EEC20-03-WBH
dated 04 Aug 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

Cyber Pte Limited
Cyber Centre
16/18 Jalan Kilang Barat
Singapore 159358

Attn: Paul Cheong

SAMPLE SUBMISSION DATE/ TEST DATE

20 July 2020 / 30 July 2020

DESCRIPTION OF SAMPLES

One mask sample described as below was received.

Sample Description	Product Name	Manufacturer	Lot No.
BioMask 3-Layer Protective Mask	3-Layer Protective Mask/ BioMask	Cyber Pte Limited	BM202007CY1



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-psb.sg
www.tuv-sud-psb.sg
Co. Reg : 199002667R

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

DESCRIPTION OF SAMPLES (cont'd)



Figure 1: "BioMask 3-Layer Protective Mask" sample as received

METHOD OF TEST

ASTM F2100-19 Standard Specification for Performance of Materials Used in Medical Face Masks
-Clause 6.1/ 9.2 Differential pressure (Determine breathing resistance or differential pressure as directed in EN 14683:2019, Annex C)

Airflow: 8 L/min

Test area: 4.9 cm²

Number of test specimen: 5

Number of test area per specimen: 5


RESULTS:

Sample Description: BioMask 3-Layer Protective Mask


Test Specimen	Average Differential Pressure (ΔP) for tested areas (mm H ₂ O /cm ²)	Requirement
1	2.0	Medical Face Mask Material Requirements by Performance Level
2	2.2	
3	2.0	Level 1 Barrier < 5 mm H ₂ O /cm ² Level 2 Barrier < 6 mm H ₂ O /cm ² Level 3 Barrier < 6 mm H ₂ O /cm ²
4	2.0	
5	2.0	

REMARKS:

1. The above test results relate to the samples as received.



William Wei
Associate Engineer

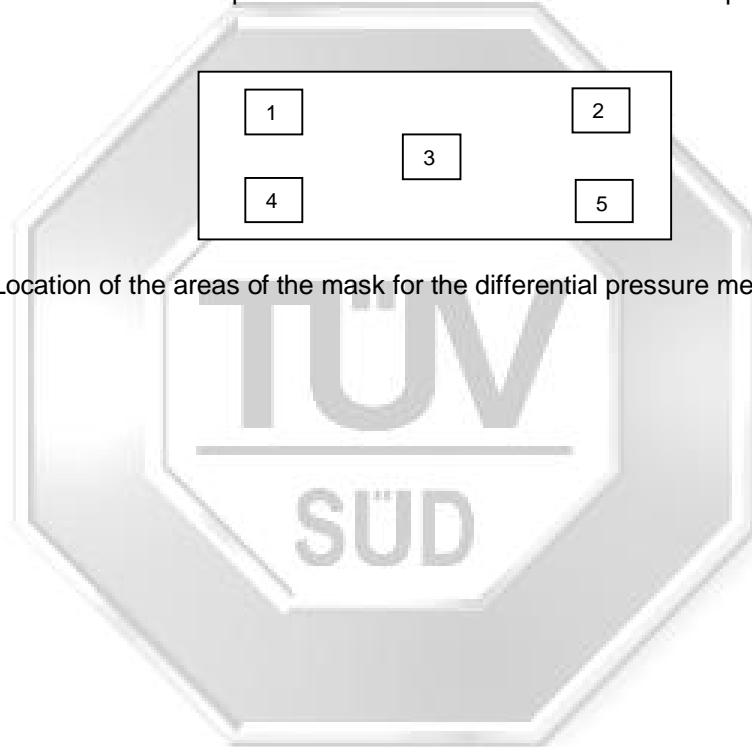


Wong Bee Hui
Product Manager
Medical Health Services (NAM)

APPENDIX:

Test areas	Differential Pressure (ΔP) (H ₂ O /cm ²)				
	Specimen 1	Specimen 2	Specimen 3	Specimen 4	Specimen 5
1	1.7	2.6	2.0	1.8	1.7
2	2.0	1.8	2.1	1.9	1.9
3	1.8	1.8	1.9	1.8	1.8
4	2.3	2.1	1.8	2.5	2.1
5	2.4	2.5	2.5	2.2	2.3
Average	2.0	2.2	2.0	2.0	2.0

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



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

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.

July 2011

