

**Test Report**                      **SL52035261863501TX**                      **Date: July 13, 2020**                      **Page 1 of 5**  
 ZHEJIANG HONGYU MEDICAL COMMODITY CO., LTD  
 NO.668 CHANHUA ROAD FOTANG TOWN INDUSTRIAL FUNCTIONAL AREA 322002 YIWU CITY,  
 ZHEJIANG PROVINCE PEOPLE'S REPUBLIC OF CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description                      :    (A)Medical face mask

SGS Internal Ref No.                    :    SHHL2006525620MD

Sample Color                            :    (A)Blue

Manufacturer                            :    ZHEJIANG HONGYU MEDICAL COMMODITY CO., LTD

Country of Origin                        :    China

Supplier                                  :    ZHEJIANG HONGYU MEDICAL COMMODITY CO., LTD

Roll/ Lot No.                             :    20061801

Other Information                        :    Request Age Grading:2 years

Test Performed                          :    Selected test(s) as requested by applicant

Sample Receiving Date                 :    Jun 30, 2020

Testing Period                            :    Jun 30, 2020 - Jul 13, 2020

Test Result(s)                          :    Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

Signed for and on behalf of  
 SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center

Sara Guo (Account Executive)

Helen Xuan (Authorized Signatory)



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Test Result

**Standard Specification for Performance of Materials Used in Medical Face Masks**  
(ASTM F2100-19)

**Section 6.1 Bacterial filtration efficiency (BFE)**  
(ASTM F2101-19)

Sample: A

Conditioning Parameters : Minimum of 4 hours at 21±5°C and 85±5% R.H.  
Dimensions of test specimen : 110 mm x 110 mm  
Test Area : ~60 cm<sup>2</sup>  
Test Side : Inside  
Flow Rate : 28.3 l/min  
Positive Control Average : 1990.5 CFU  
Negative Monitor Count : < 1 CFU

	1#	2#	3#	4#	5#
(BFE), %	99.9	99.9	99.9	99.9	99.9

Remark: Performance Requirement: Level 1 ≥95%, Level 2 ≥98%, Level 3 ≥98%



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**Section 6.1 Differential Pressure**

(EN 14683 :2019+AC:2019 Annex C)

Sample: A

Test Side : Randomly test in different location (1 around and 4 away from the centric point) on each of the 5 masks

Pre-Conditioning : Minimum of 4 hours at 21±5°C (70±10°F) and 85±5% R.H.

Test Area : 4.9 cm<sup>2</sup>

Flow Rate : 8 l/min

Specimen No.	Test Area No.	Different Pressure for each tested area (mm H <sub>2</sub> O/cm <sup>2</sup> )	The average value for each test specimen (mm H <sub>2</sub> O/cm <sup>2</sup> )
1	1-1	3.63	3.9
	1-2	4.08	
	1-3	4.06	
	1-4	3.76	
	1-5	3.77	
2	2-1	3.89	3.8
	2-2	3.87	
	2-3	3.65	
	2-4	3.98	
	2-5	3.80	
3	3-1	3.80	3.7
	3-2	3.65	
	3-3	3.75	
	3-4	3.61	
	3-5	3.80	
4	4-1	3.45	3.7
	4-2	3.26	
	4-3	3.69	
	4-4	4.26	
	4-5	3.79	
5	5-1	3.80	3.7
	5-2	3.94	
	5-3	3.58	
	5-4	3.52	
	5-5	3.67	

Remark:

- 1) Performance Requirement: Level 1 Barrier: <5.0mm H<sub>2</sub>O/cm<sup>2</sup>, Level 2 Barrier: <6.0 mm H<sub>2</sub>O/cm<sup>2</sup>, Level 3 Barrier: <6.0 mm H<sub>2</sub>O/cm<sup>2</sup>
- 2) The number of specimens that shall be tested is minimum 5, but can be greater and shall be increased if necessary to allow for an AQL (Acceptable Quality Level) of 4%.



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**Section 6.1 Resistance to Penetration by Synthetic Blood**  
(ASTM F1862/F1862M-2017)

Sample: A  
Pressure 80mmHg

<b>Penetration on inside surface</b>							
1#	2#	3#	4#	5#	6#	7#	8#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
9#	10#	11#	12#	13#	14#	15#	16#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
17#	18#	19#	20#	21#	22#	23#	24#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
25#	26#	27#	28#	29#	30#	31#	32#
Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Number of Pass:			32				
Overall result:			Acceptable				

**Remark:**

- 1) Performance Requirement Level 1 Barrier: 80mmHg, Level 2 Barrier: 120mmHg, Level 3 Barrier: 160mmHg
- 2) Distance of the medical face mask target area surface to the tip of cannula is 30.5cm.
- 3) Condition and Test temperature (21±5)° C, relative humidity (85±5)%
- 4) An acceptable quality limit of 4.0% is met for a single sampling plan when 29 or more of the 32 tested specimens show pass results

**Section 6.2 Flammability**  
(16 CFR Part 1610 - 2008)

Sample : A  
Fabric Surface : Smooth  
Test Specimen Direction : Length

<b>As Received</b>	
<b>Burn Code</b>	
(1)	IBE
(2)	IBE
(3)	IBE
(4)	IBE
(5)	IBE

Flammability Classification: Class 1

Requirement: Class 1 for Level 1/ Level 2/ Level 3

**Conclusion: Pass**

**Remarks**

Class 1 Normal Flammability  
Class 1 textiles exhibit normal flammability and are acceptable for use in clothing.

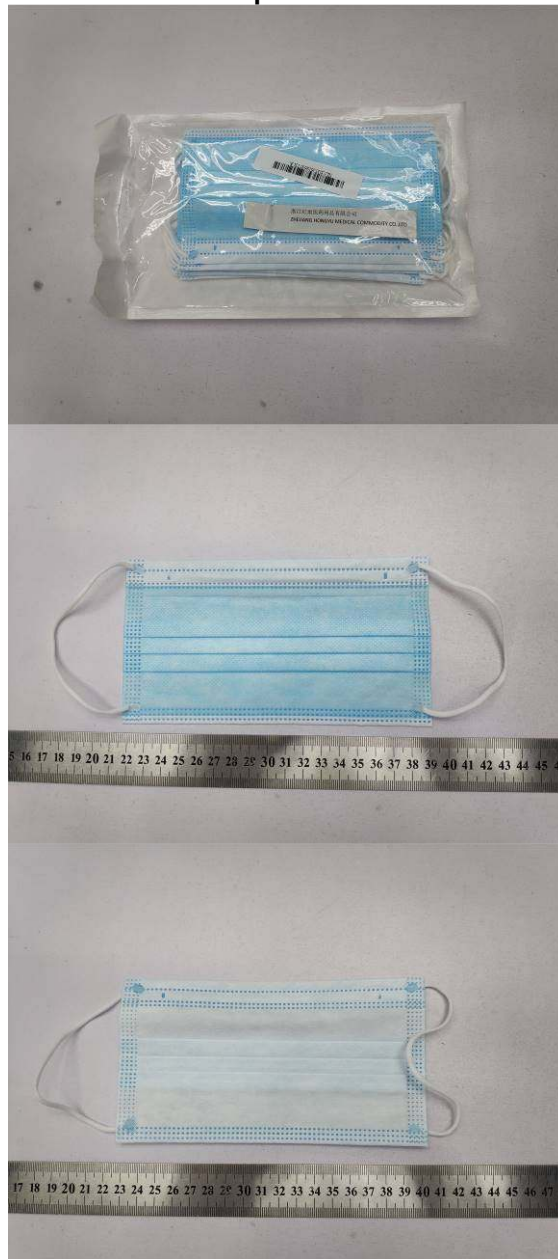
**Burn Code Description:**

IBE = Ignited, but extinguished



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Sample Photo



The statement of conformity in this test report is only based on measured values by the laboratory and does not take their uncertainties into consideration.

\*\*\*End of Report\*\*\*



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