

# ASTM LEVEL 2

**Bacterial filtration efficiency (ASTM F2101)**

> 98%

**Differential pressure (EN 14683:2019 Annex C)**

< 6.0mm H<sub>2</sub> O/cm<sup>2</sup>

**Sub-Micron Particulate Filtration (ASTM F2299)**

> 98%

**Resistance to penetration by synthetic blood (ASTM F1862)**

Penetration not seen at 120mm Hg

**Flammability 16 CFR part 1610**

Class 1







customizable



# PRODUCT INFORMATION

**50PCS/BOX (BOX-PACKED)**

SIZE:17.5\*10\*7.5CM



**50PCS\*40 (CARTON-PACKED)**

SIZE:51.5\*36.5\*32CM





# BUSINESS LICENSE



## 营业执照

(副本)

统一社会信用代码

913506233154176365



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名称 漳浦县通宝工贸有限公司

类型 有限责任公司

法定代表人 胡泗强

经营范围 五金制品加工、销售；木材销售；医用防护口罩、非医用日常防护口罩生产、销售；普通货物运输、集装箱运输。（依法须经批准的项目，经相关部门批准后方可开展经营活动）

注册资本 伍佰万圆整

成立日期 2015年01月07日

营业期限 2015年01月07日 至 2065年01月06日

住所 福建省漳州市漳浦县大南坂镇场部管理区

登记机关



2020年3月5日



# TEST REPORT ASTM F2100-19



Test Report No.: T32020240434SN Date: MAY 18, 2020 Page 2 of 6

## ASTM F2100-19 Standard Specification for Performance of Materials Used in Medical Face Masks

Scope : This specification covers testing and requirements for materials used in the construction of medical face masks that are used in providing healthcare services such as surgery and patient care. This specification provides for the classification of medical face mask material performance.

Number of Specimen : 100 pcs of complete product

Clause	Test Items/requirement	Test Result Summary
<b>5</b>	<b>Classification</b>	See Table 1
<b>6</b>	<b>Requirements</b>	
6.1	The properties of the medical face mask material shall conform to the specifications requirements in Table 1, as tested in accordance with Section 9. Bacterial filtration efficiency (ASTM F2101) Differential pressure (EN 14683:2019 Annex C) Sub-Micron Particulate Filtration (ASTM F2299) Resistance to penetration by synthetic blood (ASTM F1862)	> 98% < 6.0 mm H <sub>2</sub> O/cm <sup>2</sup> > 98% Penetration not seen at 120 mm Hg
6.2	Flammability 16 CFR Part 1610	Class 1

Table 1 Medical Face Mask Material Requirements by Performance Level

Characteristics	Level 1 Barrier	Level 2 Barrier	Level 3 Barrier
Bacterial filtration efficiency, %	≥ 95	≥ 98	≥ 98
Differential pressure, mm H <sub>2</sub> O/cm <sup>2</sup>	< 5.0	< 6.0	< 6.0
Sub-micron particulate filtration efficiency at 0.1 micron, %	≥ 95	≥ 98	≥ 98
Resistance to penetration by synthetic blood, minimum pressure in mm Hg for pass result <sup>#</sup>	80	120	160
Flame spread	Class 1	Class 1	Class 1

<sup>#</sup> - 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.

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Test Report No.: T32020240434SN Date: MAY 18, 2020 Page 1 of 6

ZHANGPU TONGBAO INDUSTRY & TRADE CO., LTD  
MANAGEMENT AREA OF FIELD DEPARTMENT, DANANBAN TOWN, ZHANGPU COUNTY,  
ZHANGZHOU CITY, FUJIAN PROVINCE, CHINA

The following samples were submitted and identified on behalf of the client as:

### DISPOSABLE PROTECTIVE MASK

SGS Case No. : CA320202422819  
Style / Item No. : TB-01  
Ref. No. : CP20-014856  
Lot No. / Batch Code : NOT PROVIDED  
Sample Description : BLUE MASK  
Quantity Submitted : 100 PCS  
Manufacturer : ZHANGPU TONGBAO INDUSTRY & TRADE CO., LTD  
Country of Origin : CHINA  
Country of Destination : UNITED STATES  
Sample Receiving Date : APR 20, 2020  
Test Performing Date : APR 20 TO MAY 18, 2020

Test Requested : Please refer to the result summary.

Test Method & Results : Please refer to next page(s).

### Result Summary

Test Requested	Result Summary
ASTM F2100-19 Standard Specification for Performance of Materials Used in Medical Face Masks	See Result

Signed for and on behalf of  
SGS Hong Kong Ltd.

*Au Kam Chi*  
Au Kam Chi, Gigi  
Technical Manager

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Test Report No.: T32020240434SN Date: MAY 18, 2020 Page 3 of 6

### Result 1 Bacterial filtration efficiency ASTM F2101-19

Test Side : White Side  
Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.  
Dimensions of test specimen : ~ 170 mm x 160 mm  
BFE Test Area : 40 cm<sup>2</sup>  
BFE Flow Rate : 28.3 l/min  
Test bacteria : Staphylococcus aureus ATCC 6538  
Mean Particle Size : 2.8 µm  
Positive Control Average : 2.9 x 10<sup>3</sup> CFU  
Negative Monitor Count : < 1 CFU

Test Specimen	Percent BFE (%)
1	99.9
2	99.8
3	99.8
4	99.8
5	99.8

### Result 2 Differential pressure EN14683:2019+AC:2019 Appendix C

Test Side : White Side  
Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.  
Dimensions of test specimen : ~ 170 mm x 160 mm  
Flow Rate : 8 l/min

Test Specimen	ΔP (mm H <sub>2</sub> O/cm <sup>2</sup> )	ΔP (Pa/cm <sup>2</sup> )
1	4.0	39.4
2	4.3	42.5
3	4.1	40.3
4	4.3	41.9
5	4.2	41.6

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Result 5 Flammability Test of Clothing Textiles (16 CFR Part 1610 - October 20, 2008 Edition)

Sample : Fabric cut from submitted sample  
 Fabric Surface : Plain (Face)  
 Test Specimen Direction : Length

As Received	
Flame Spread (sec.)	Burn Code
(1) --	IBE
(2) --	IBE
(3) --	IBE
(4) --	IBE
(5) --	IBE
<b>Flammability Classification:</b> Class 1	
<b>Requirement:</b> Class 1	

**Remarks:**

- Class 1 – Normal Flammability**  
 Class 1 textiles exhibit normal flammability and are acceptable for use in clothing.  
 Test Criteria for plain surface textile fabric:  
 (A) There are no burn times; or  
 (B) There is only one burn time and it is equal to or greater than 3.5 seconds; or  
 (C) The average burn time of two or more specimens is equal to or greater than 3.5 seconds.
- Disposable fabrics and garments shall not apply to be refurbished before testing.

**Burn Code Description:**

IBE = Ignited, but extinguished

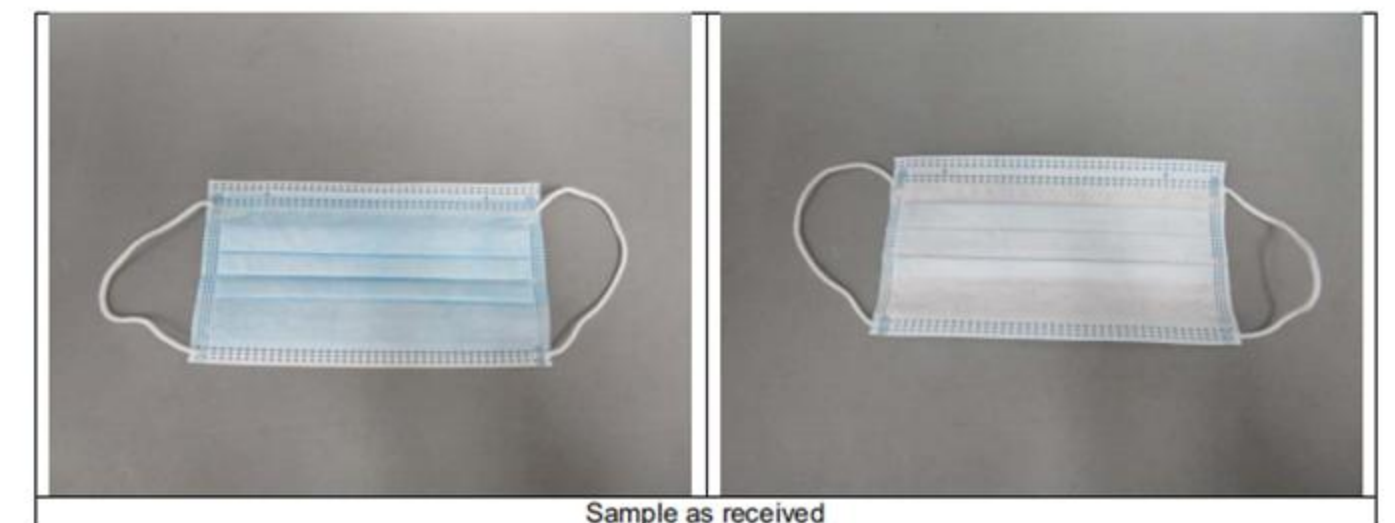
Note : All the test results except Flammability test contained in this Test Report was conducted by a SGS assessed competent subcontractor laboratory

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**Photo Appendix**



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

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Result 3 Sub-Micron Particulate Filtration ASTM F2299/F2299M-03 (Reapproved 2017)

Test Side : Blue Side  
 Pre-Conditioning : Minimum of 4 hours at 21±3°C and 30-50±5% R.H.  
 Test Condition : 23 °C and 23% R.H.  
 Test Area : 91.5 cm<sup>2</sup>  
 Particle Size : 0.1 µm  
 Average Filtration Efficiency : 98.72%  
 Standard Deviation : 0.69

Test Specimen	Test Article Counts	Average Control Counts	Filtration Efficiency (%)
1	92	12,309	99.25
2	208	12,144	98.3
3	280	11,953	97.7
4	92	11,798	99.22
5	101	11,776	99.14

Result 4 Resistance to penetration by synthetic blood ASTM F 1862/F1862M-17

Test Side : Blue Color (Outside)  
 Pre-Conditioning : Minimum of 4 hours at 21±5°C and 85±5% R.H.  
 Test Condition : 20.5 °C and 22% R.H.  
 Test Pressure : 120 mmHg  
 No of Test Specimen Tested : 32  
 No of Test Specimen Passed : 32

Test Specimen #	Synthetic Blood Penetration
1-32	None Seen

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# FDA CERTIFICATE



## Fiscal Year 2020 CERTIFICATION OF REGISTRATION

We:

**Zhangpu Tongbao Industry & Trade Co.,Ltd.**  
**Management Area of Field Department, Dananban Town, Zhangpu County,**  
**Zhangzhou City,Fujian Province**

has completed the FDA Establishment Registration and Device Listing with the US Food & Drug Administration

**Owner/Operator Number: 10068510**

Listing No.	Code	Device Name	Activities	Proprietary Name
D388615	QKR	Face mask (except N95 respirator) for general public/healthcare personnel per IIE guidance	Manufacturer	Disposable Protective Mask TB-01
D388617	LYU	ACCESSORY, SURGICAL APPAREL	Manufacturer	KN95 Respirator TB-02



Initial Registration Date: April 09, 2020  
Expiration Date: December 31, 2020





**TONGBAO**

## **EC DECLARATION OF CONFORMITY**

**According to:  
Regulation (EU) 2017/745 of the European Parliament and of the Council**

- 1. Type Equipment:**  
Disposable Protective Mask, Non-sterilized
- 2. Product Series (Model Numbers):**  
Disposable Protective Mask TB-01, TB-02
- 3. Rule(s) used for Classification:**  
Class I per Rule 1
- 4. Manufacturer's name, address, telephone and fax no.:**  
Zhangpu Tongbao Industry & Trade Co., LTD.  
Management Area of Field Department, Dananban Town, Zhangzhou, Fujian, China  
Contact: Siqiang Hu/CEO  
Tel: +86 13656045555  
Email: 286255866@qq.com
- 5. Harmonized Standards to which Conformity is declared:**  
EU MDR 2017/745  
EN 14683: 2019  
EN ISO 14971:2012  
EN 62366:2015
- 6. Authorized Representative in EU:**  
Michor Consulting and Trade Service GmbH  
Schönbrunner Straße 238/2/6,  
1120 Vienna, Austria  
Tel. +43 1 9521662  
Email: [office@michor-consulting.eu](mailto:office@michor-consulting.eu)  
ATU68346738

As a manufacturer, we declare under sole responsibility that the equipment follows the provisions of the Directives stated above.

Siqiang Hu/CEO, Zhangpu Tongbao Industry & Trade Co. Ltd.

Date of issue

28 May 2020



# TEST REPORT EN14683

Test Report No.: 721655132-2  
Report Date: 2 June 2020



**SUBJECT** Physical & Microbiological Test

**TEST LOCATION** TÜV SÜD China  
TÜV SÜD Products Testing (Shanghai) Co., Ltd.  
B-3/4, No.1999 Du Hui Road, Minhang District  
Shanghai 201108, P.R. China

**CLIENT NAME** Zhangpu Tongbao Industry & Trade Co.,Ltd.

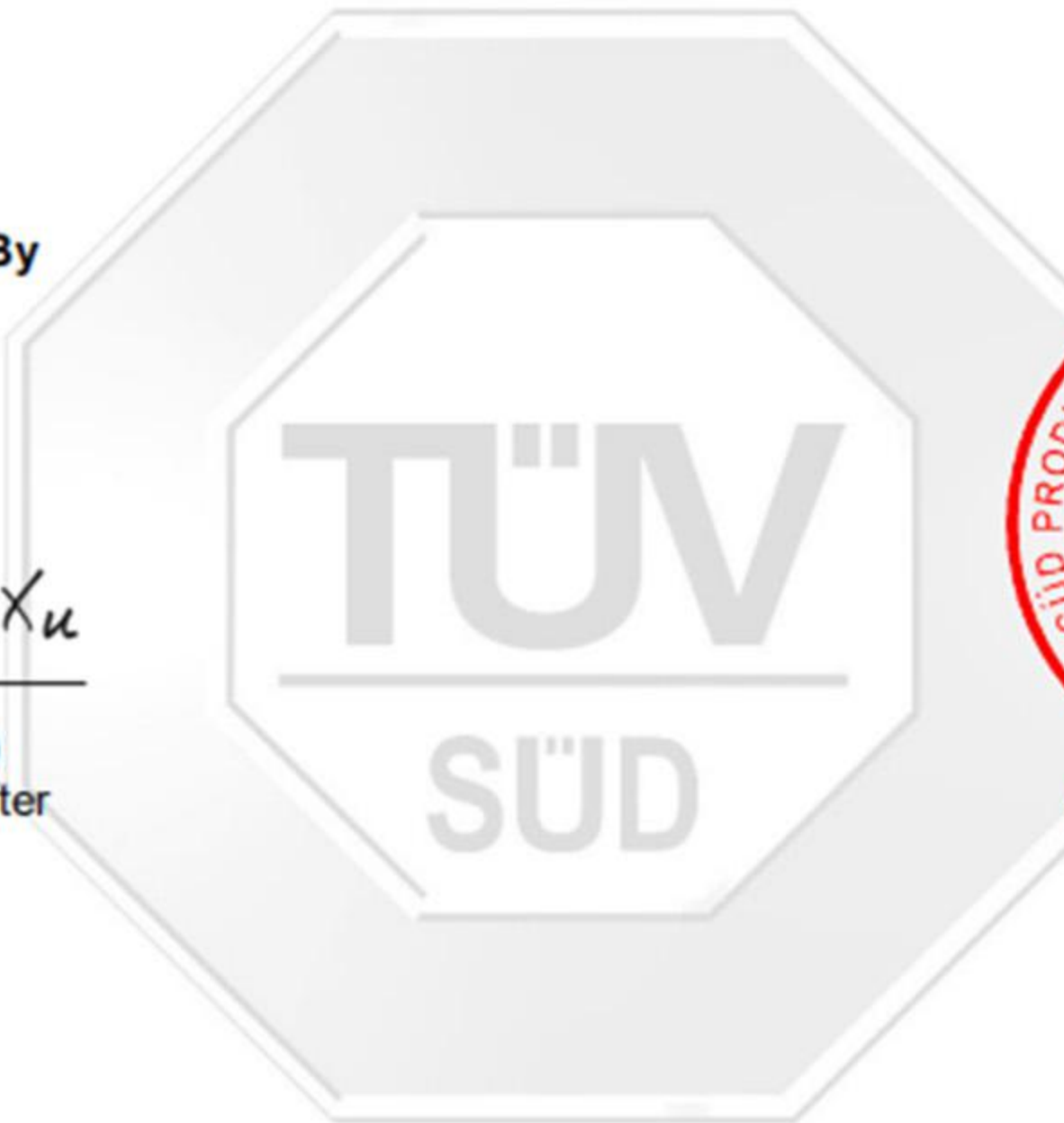
**CLIENT ADDRESS** Management Area of Field Department, Dananban Town, Zhangpu County,  
Zhangzhou City,Fujian Province

**TEST PERIOD** 16-Apr-2020~28-May-2020

Prepared By

Bella Xu

(Bella Xu)  
Report Drafter



Authorized By



(Leo Liu)  
Authorized Signatory

Note: (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested.(3) The test report shall not be reproduced except in full without the written approval of the laboratory.(4) Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

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200 070 P.R.China

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Test Report No.: 721655132-2  
Report Date: 2 June 2020



## TEST REPORT

Sample Description : Disposable Protective Mask  
Sample Quantity : 60 pieces  
Lot Number/Batch Code : /  
Specification : TB-01  
Size : 17.5 X 9.5 cm (±0.5cm)  
Brand Name : /  
Remark: The above information was provided by applicant.

### Summary of Test Results

No.	Test Item	Test Method	Test Standard Type IIR	Judgement
1	Bacterial Filtration Efficiency Test (BFE), %	EN 14683:2019+AC:2019(E) Annex B	≥ 98	Pass
2	Differential Pressure Test (Pa/cm <sup>2</sup> )	EN 14683:2019+AC:2019(E) Annex C	< 60	Pass
3	Synthetic Blood Penetration Test (kPa)	ISO 22609:2004	≥ 16.0	Pass
4	Microbial Cleanliness Test (CFU/g)	EN 14683:2019+AC:2019(E) Annex D	≤ 30	Pass

Note: Pass = Meet customer requirements;  
Fail = Fail customer requirements;  
# = No comment;  
N.D. = Not detected.

### Photo of Samples



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Test Report No.: 721655132-2  
Report Date: 2 June 2020



## Results

No.	Test Item	Test Result
1	Bacterial Filtration Efficiency (BFE) Test	Specimen 1#: 99.9% Specimen 2#: 99.8% Specimen 3#: 99.8% Specimen 4#: 99.8% Specimen 5#: 99.7%
2	Differential Pressure Test	45.3 Pa/cm <sup>2</sup>
3	Synthetic Blood Penetration Test	Specimen 1#-32#: None seen
4	Microbial Cleanliness Test	Specimen 1#: 4 CFU/g Specimen 2#: 7 CFU/g Specimen 3#: 7 CFU/g Specimen 4#: 7 CFU/g Specimen 5#: 6 CFU/g

### Bacterial Filtration Efficiency (BFE) Test

#### 1. Purpose

For evaluating the bacterial filtration efficiency (BFE) of mask.

#### 2. Sample description was given by client

Sample description : Disposable Protective Mask  
Specification : TB-01  
Lot Number : /  
Sample Receiving Date : 2020-04-16

#### 3. Test Method

EN 14683:2019+AC:2019(E) Annex B

#### 4. Apparatus and materials

1. Staphylococcus aureus ATCC 6538 (Particle Diameter 3.0±0.3µm).
2. Peptone water.
3. Tryptic Soy Broth(TSB).
4. Tryptic Soy Agar(TSA).
5. Bacterial filtration efficiency test apparatus.
6. Six-stage viable particle Anderson sampler.
7. Flow meters.

#### 5. Test specimen

- 5.1 As requested by client, take a total of 5 test specimens.
- 5.2 Prior to testing, condition all test specimens for a minimum of 4 h at (21±5)°C and (85±5%) relative humidity.

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# TEST REPORT EN14683

Test Report No.: 721655132-2  
Report Date: 2 June 2020



## 6. Procedure

- 6.1 Preparation of the bacterial challenge: Dilute the culture in peptone water to achieve a concentration of approximately  $5 \times 10^5$  CFU/mL.
- 6.2 Adjust the flow rate through the Anderson sampler to 28.3 L/min.
- 6.3 Deliver the challenge to the nebulizer using a syringe pump. Purge tubing and nebulizer of air bubbles.
- 6.4 Perform a positive control run without a test specimen to determine the number of viable aerosol particles being generated. The mean particle size (MPS) of the aerosol will also be calculated from the results of these positive control plates.
  - 6.4.1 Initiate the aerosol challenge by turning on the air pressure and pump connected to the nebulizer. Immediately begin sampling the aerosol using the Anderson sampler.
  - 6.4.2 Time the challenge suspension to be delivered to the nebulizer for 1 min.
  - 6.4.3 Time the air pressure and Anderson sampler to run for 2 min.
  - 6.4.4 At the conclusion of the positive control run, remove plates from the Anderson sampler.
- 6.5 Place new agar plates into Anderson sampler and clamp the test specimen into the top of the Anderson sampler, with the inside of the specimen facing towards the bacterial challenge (test area:  $77\text{cm}^2$ ).
- 6.6 Repeat the challenge procedure for each test specimen.
- 6.7 Repeat a positive control after completion of the sample set.
- 6.8 Perform a negative control run by collecting a 2 min sample of air from the aerosol chamber. No bacterial challenge should be pumped into the nebulizer during the collection of the negative control.
- 6.9 Incubate agar plates at  $(37 \pm 2)^\circ\text{C}$  for (20 to 52) h.
- 6.10 Count each of the six-stage plates of the Anderson sampler.

## 7. Calculation

Total the count from each of the six plates for the test specimens and positive controls, as specified by the manufacture of Anderson sampler. The filtration efficiency percentages are calculated as follows:

$$\text{BFE} = (C - T) / C \times 100$$

T is the total plate count for the test specimen.

C is the mean of the total plate counts for the two positive controls.

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Test Report No.: 721655132-2  
Report Date: 2 June 2020



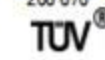
## 8. Test results\*

Stage Number	P Value	Positive Control (A)	Positive Control (B)	Negative Control	Specimen 1#	Specimen 2#	Specimen 3#	Specimen 4#	Specimen 5#
1	42	37	0	0	0	0	0	0	0
2	59	91	0	0	0	0	0	0	0
3	129	180	0	0	0	0	0	0	0
4	269	260	0	0	0	0	0	0	0
5	1219	1438	0	2	3	2	4	6	
6	488	411	0	1	1	2	1	1	
Total (T), CFU	2206	2417	<1	3	4	4	5	7	
Average (C), CFU	$2.3 \times 10^4 \times (P_A + P_B) / 2$								
BFE, %					99.9	99.8	99.8	99.8	99.7
Requirements	≥ 98								
Remarks	P is the value of corresponding corrected particle counts as specified by the manufacturer of the cascade impactor. T is the total of P value for the test specimen. C is the mean of the total of P value of the two positive controls.								

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Test Report No.: 721655132-2  
Report Date: 2 June 2020



## Differential pressure Test

### 1. Purpose

The purpose of the test was to measure the differential pressure of masks.

### 2. Sample description was given by client

Sample description : Disposable Protective Mask  
Specification : TB-01  
Lot Number : /  
Sample Receiving Date : 2020-04-16

### 3. Test Method

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

### 4. Apparatus and materials

Differential pressure testing instrument

### 5. Test specimen

- 5.1 Test specimen are complete masks or shall be cut from masks. Each specimen shall be able to provide 5 different circular test areas of 2.5 cm in diameter.
- 5.2 Prior to testing, condition all test specimens for a minimum of 4 h at  $(21 \pm 5)^\circ\text{C}$  and  $(85 \pm 5)\%$  relative humidity.

### 6. Procedure

- 6.1 Without a specimen in place, the holder is closed and the differential manometer is zeroed. The pump is started and the flow of air adjusted to 8 L/min.
- 6.2 The pretreated specimen is placed across the orifice (total area  $4.9\text{cm}^2$ , test area diameter 25mm, airflow direction from the inside of the mask to the outside of the mask) and damped into place so as to minimize air leaks.
- 6.3 Due to the presence of an alignment system the tested area of the specimen should be perfectly in line and across the flow of air.
- 6.4 The differential pressure is read directly.
- 6.5 The procedure described in steps 6.1-6.4 is carried out on 5 different areas of the mask and readings averaged.

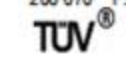
### Results:

Specimen	Test Results* (Pa/cm <sup>2</sup> )	Average (Pa/cm <sup>2</sup> )	Requirements	Judgement
1#	45.0	45.3	< 60	Pass
2#	42.7			
3#	46.7			
4#	47.4			
5#	44.6			

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# TEST REPORT BFE PFE



## TEST REPORT (Electronic version)



No: 200109596

VERIFICATION WEBSITE: [www.gttc.net.cn](http://www.gttc.net.cn)  
VERIFICATION CODE: UXHX-3634-24



ISSUE DATE: 2020-05-11

APPLICANT: ZHANGPU TONGBAO INDUSTRY & TRADE CO., LTD.  
ADDRESS: MANAGEMENT AREA OF FIELD DEPARTMENT, DANANBAN TOWN, ZHANGPU COUNTY, ZHANGZHOU CITY, FUJIAN PROVINCE

INFORMATION CONFIRMED BY APPLICANT:

DISPOSABLE PROTECTIVE MASK

QUANTITY: THIRTY PIECES

BRAND: JCJZ

STYLE NO.: TB-01

COLOUR: BLUE

MATERIAL: NON-WOVEN FABRIC, MELTBLOWN FABRIC

DATE RECEIVED/DATE TEST STARTED: 2020-05-08

CONCLUSION:

BACTERIAL FILTRATION EFFICIENCY	M
PARTICLE FILTRATION EFFICIENCY	M

NOTE: "M" - MEET THE STANDARD'S REQUIREMENT "F" - FAIL TO MEET THE STANDARD'S REQUIREMENT  
"---" - NO COMMENT

REMARK:  
THIS REPORT IS THE ENGLISH TRANSLATION VERSION OF THE REPORT 200080191.  
ALL THE TESTED ITEMS ARE TESTED UNDER THE STANDARD CONDITION (EXCEPT FOR INDICATION).  
COPIES OF THE REPORT ARE VALID ONLY RE-STAMPED.  
THE EXPERIMENT WAS CARRIED OUT AT No. 1, ZHUJIANG ROAD, PANYU DISTRICT, GUANGZHOU, GUANGDONG, P. R. CHINA.

APPROVED BY:  
ZiShan Guo SENIOR ENGINEER

郭子山



PAGE 1 OF 3

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电话: 020-37721161



TEST REPORT (Electronic version)

No: 200109596



总部: 广州市番禺区珠江路1号  
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电话: 020-37721161



TEST REPORT (Electronic version)

No: 200109596

BACTERIAL FILTRATION EFFICIENCY (%)  
(YY 0469-2011 ANNEX B, TEST BACTERIA: STAPHYLOCOCCUS AUREUS ATCC 6538, TEST AREA: 40cm<sup>2</sup>, FLOW RATE: 28, 3L/min, MEAN PARTICLE SIZE: 3.0 μm, RESULT OF THE POSITIVE CONTROL: 1.9×10<sup>8</sup> CFU, RESULT OF THE NEGATIVE CONTROL: <1CFU)

BFE <sub>1</sub>	99.8	≥95
BFE <sub>2</sub>	99.4	≥95
BFE <sub>3</sub>	99.5	(YY 0469-2011)

PARTICLE FILTRATION EFFICIENCY (%)  
(YY 0469-2011 5.6.2, AIR FLOW: 30L/min, AEROSOL: NaCl, AEROSOL CONCENTRATION: 15mg/m<sup>3</sup>, TEMP: 23.1°C, RH: 36.0%)

MINIMUM	95.80	REQUIREMENT
		≥30
		(YY 0469-2011)



—End of Report—

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# TEST REPORT GB/T32610-2016



## TEST REPORT (Electronic version)



VERIFICATION WEBSITE: [www.gttc.net.cn](http://www.gttc.net.cn)  
VERIFICATION CODE: IXFS-2600-04



No:200111518

ISSUE DATE:2020-05-09

APPLICANT: ZHANGPU TONGBAO INDUSTRY & TRADE CO.,LTD.  
ADDRESS: MANAGEMENT AREA OF FIELD DEPARTMENT, DANANBAN TOWN, ZHANGPU COUNTY, ZHANGZHOU CITY, FUJIAN PROVINCE

INFORMATION CONFIRMED BY APPLICANT:  
DISPOSABLE PROTECTIVE MASK  
QUANTITY: FORTY PIECES

DATE RECEIVED/DATE TEST STARTED: 2020-05-07

### CONCLUSION:

pH VALUE	M
FORMALDEHYDE CONTENT	M
RESIDUAL ETHYLENE OXIDE	M
BREAKING STRENGTH OF MASK STRING AND JUNCTION BETWEEN MASK STRING AND MASK BODY	M
INSPIRATORY RESISTANCE	M
EXPIRATORY RESISTANCE	M
BANNED AZO COLOURANTS	M

NOTE: "M" -MEET THE STANDARD'S REQUIREMENT "F" -FAIL TO MEET THE STANDARD'S REQUIREMENT  
"---" -NO COMMENT

### REMARK:

THIS REPORT IS THE ENGLISH TRANSLATION VERSION OF THE REPORT 200033401.  
ALL THE TESTED ITEMS ARE TESTED UNDER THE STANDARD CONDITION (EXCEPT FOR INDICATION).  
COPIES OF THE REPORT ARE VALID ONLY RE-STAMPED.  
THE EXPERIMENT WAS CARRIED OUT AT No.1, ZHUJIANG ROAD, PANYU DISTRICT, GUANGZHOU, GUANGDONG, P. R. CHINA.

APPROVED BY:  
Nan Ma ENGINEER

马楠



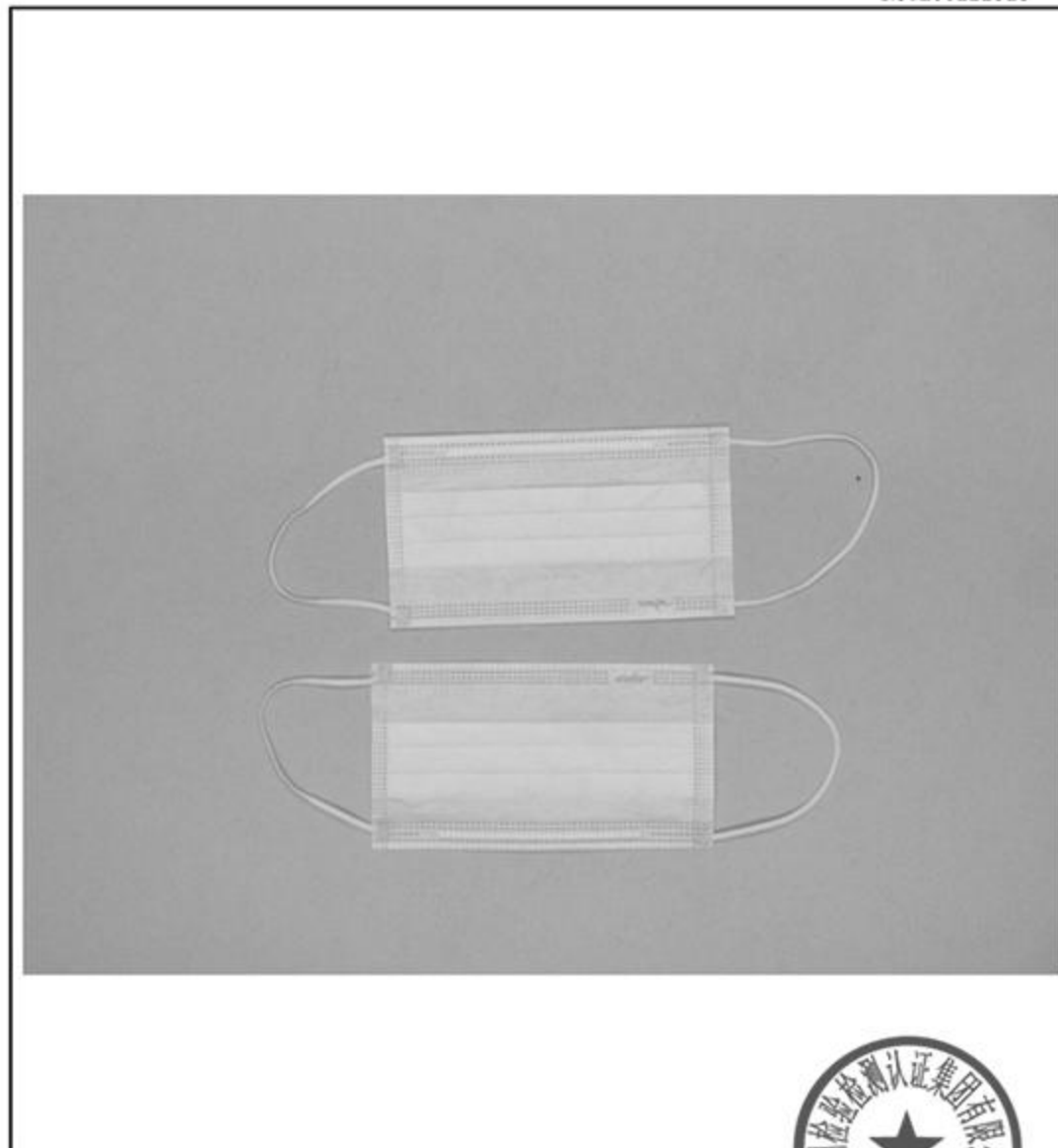
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## TEST REPORT (Electronic version)

No:200111518



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## TEST REPORT (Electronic version)

No:200111518

**pH VALUE**  
(GB/T 7573-2009, 0.1mol/L HCl EXTRACTING SOLUTION)  
(GB/T 7573-2009 MOD ISO 2071:2005)  
6.5 REQUIREMENT 4.0-8.5 (GB/T 32610-2016)

**FORMALDEHYDE CONTENT**  
(GB/T 2912.1-2009, WATER EXTRACTION METHOD)  
(GB/T 2912.1-2009 MOD ISO 14184-1:1999)  
NOT DETECTED REQUIREMENT ≤20 mg/kg (GB/T 32610-2016)

REMARK: DETECTION LIMIT 20mg/kg

**RESIDUAL ETHYLENE OXIDE**  
(GB/T 14233.1-2008)  
NOT DETECTED (DETECTION LIMIT:0.5 μg/g) REQUIREMENT ≤10 μg/g (GB/T 32610-2016)

**BREAKING STRENGTH OF MASK STRING AND JUNCTION BETWEEN MASK STRING AND MASK BODY (N)**  
(GB/T 13773.2-2008)  
(GB/T 13773.2-2008 IDT ISO 13935-2:1999)  
35 REQUIREMENT ≥20 (GB/T 32610-2016)

**INSPIRATORY RESISTANCE (Pa)**  
(GB/T 32610-2016 6.7, HEAD SIZE: MEDIUM)  
UNTREATED SAMPLE: 1# 70.1 2# 71.4 PRETREATMENT SAMPLE: 1# 68.9 2# 65.7 REQUIREMENT ≤175 (GB/T 32610-2016)

**EXPIRATORY RESISTANCE (Pa)**  
(GB/T 32610-2016 6.8, HEAD SIZE: MEDIUM)  
UNTREATED SAMPLE: 1# 53.0 2# 51.6 PRETREATMENT SAMPLE: 1# 52.2 2# 50.4 REQUIREMENT ≤145 (GB/T 32610-2016)



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## TEST REPORT (Electronic version)

No: 200111518

BANNED AZO COLOURANTS

TEST METHOD: GB/T 17592-2001, GENERAL PRETREATMENT

DIAMINE AZINE	CAS NO.	REQUIREMENT (mg/kg)	RESULT (mg/kg)
4-aminobiphenyl	[92-67-1]	≤20	N
benzidine	[92-67-2]	≤20	N
4-chloro-p-toluidine	[95-69-2]	≤20	N
2-naphthylamine	[91-09-8]	≤20	N
o-toluidine	[97-56-3]	≤20	N
5-nitro-p-toluidine	[99-53-8]	≤20	N
p-chloroaniline	[106-47-8]	≤20	N
2,4-diaminotoluene	[618-05-1]	≤20	N
4,4'-diminobiphenylmethane	[101-77-9]	≤20	N
3,3'-dichlorobenzidine	[91-94-1]	≤20	N
3,3'-dimethylbenzidine	[119-90-7]	≤20	N
3,3'-dimethyl-4,4'-diaminobiphenylmethane	[838-88-0]	≤20	N
precursor	[120-71-0]	≤20	N
4,4'-methylenebis(2-chloroaniline)	[109-14-1]	≤20	N
4,4'-oxydianiline	[101-80-1]	≤20	N
4,4'-thiodianiline	[120-65-1]	≤20	N
o-toluidine	[95-53-1]	≤20	N
2,4-tolylendiamine	[95-60-7]	≤20	N
2,4,5-trimethylaniline	[137-17-7]	≤20	N
oranzidine	[90-01-0]	≤20	N
2,6-xylidine	[95-68-1]	≤20	N
2,6-xylidine	[87-62-7]	≤20	N
4-aminobenzene	[60-09-3]	≤20	N

\*N\* DENIES LESS THAN THE DETECTION LIMIT OF 5mg/kg  
RATING ACCORDING TO GB/T 32610-2016.

OVERALL RATING PASS



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—End of Report—