ORIGINAL

Test Report

Scan to Query

Report Number： SGT-202602001-03

Device: SURGICAL FACK MASK

Report Date: 2026.03.12

Applicant Name: Rizhao Sanqi Medical & Health Articles Co., Ltd.

Applicant Address: No. 137 Rizhao North Road, High tech Zone, Rizhao City

Manufacturer: Rizhao Sanqi Medical & Health Articles Co., Ltd.

Manufacturer Address: No. 137 Rizhao North Road, High tech Zone, Rizhao City

Revision history of report			
Version	Details	Author/Editor	Issue Date
SGT-202602001-03	Initial version	Shujuan Cao	2026.03.12

Statement

All the information or parameter about product are provided by applicant.

The result of the commission test is only responsible for the sample(s) provided.

The test report is not valid without the signatures.

The test report is not valid if scribbled or altered.

Any dispute of the test report must be raised to the testing body within 15 days after the test report is received exceeding which the dispute will not be accepted.

Copy of the test report (except copy of the whole report) is not allowed without written approval.

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

Product name: SURGICAL FACK MASK

Size: 17.5×9.5cm

Code/Model: K202903 (SQ-3001)

Sample description: ASTM F2100-25,Level 3,Non-sterile

Sampling quantity: 160

Lot number: 260205

Tests Conducted:

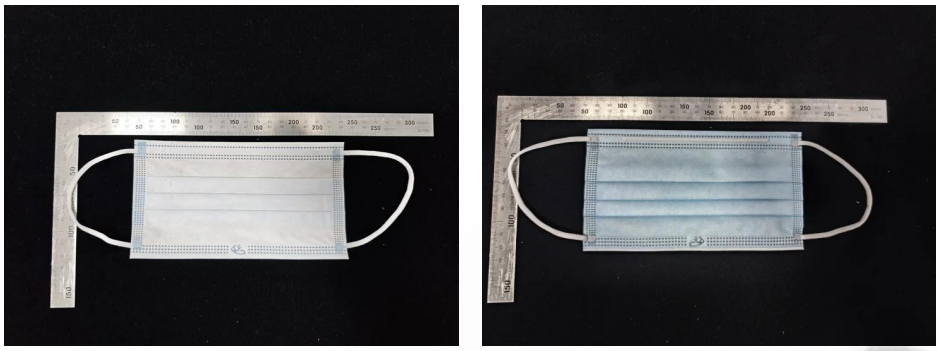
Date Received: 2026.03.02

Date Test Conducted: 2026.03.04~2026.03.12

Test Report

Report Number： SGT-202602001-03

Inspection standard: ASTM F2100-25 Standard Specification for Performance of Materials Used in Medical Face Masks



Test Sample

For details refer to attached page(s).

Conclusion:

The test samples' Bacterial Filtration Efficiency,Synthetic Blood Penetration Test,Flammability Test,Sub-Micron Particulate Filtration & Differential Pressure Test meet the requirement of Level 3 in ASTM F2100-2025.

Section No.	Test Name	Test Standard	Sample Quantity	Judgement
SGT-202602001-03.01	Bacterial Filtration Efficiency	ASTM F 2101-25	32	Pass
SGT-202602001-03.02	Sub-Micron Particulate Filtration	ASTM F2100-2025, 9.3	32	Pass
SGT-202602001-03.03	Synthetic Blood Penetration Test	ASTM F1862/F1862M−24	32	Pass
SGT-202602001-03.04	Flammability Test	16 CFR Part 1610	32	Pass
SGT-202602001-03.05	Differential Pressure Test	EN 14683:2025, Annex C	32	Pass

Decision rule:

No need to consider the uncertainty associated with the test results according to the applicant.

Shanghai SUNGO Medical Technology Co.,Ltd. 上海沙格医疗科技有限公司 检验检测专用章

Should you have any queries about the test report, please contact:

Approved by:	**Checked by:**	**Prepared by:**
Name Raymond Luo	Name Betty Ruan	Name Shujuan Cao
Title Supervisor	Title Reviewer	Title Author/Editor

Test Items, Method and Results：

SGT-202602001-03.01	**Bacterial Filtration Efficiency Test**
Ref. Specs Section	ASTM F 2101-25 Standard Test Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Materials, Using a Biological Aerosol of Staphylococcus aureus
Date Tested	2026.03.11~2026.03.12
Sample Quantity	32
Sample No.	SGTS-20260200102.001~SGTS-20260200102.032
Test Environment	24.2℃, 40%RH
Test Location	Room 218/219,Building B, No.958, Kangqiao East Road, Pudong New Area, Shanghai, China
Test Method	**1. Purpose:** For evaluating the bacterial filtration efficiency (BFE) of mask. **2. Identification of Test System and Reagents** 2.1 Staphylococcus aureus ATCC 6538; 2.2 Peptone water; 2.3 Tryptic Soy Broth; 2.4 Tryptic Soy Agar; **3. Test Specimen：** 3.1 Test specimen are complete masks or materials cut from mask. 3.2 Prior to testing, condition all test specimens for a minimum of 4h at (21± 5) ° C and (85± 5) % relative humidity. 3.3 The mask is installed with the outside facing up as a challenge surface in the experimental device. **4. Test Procedure：** 4.1 Preparation of the bacterial challenge: Dilute the culture in peptone water to achieve a concentration of approximately 5×10^5 CFU/mL. The challenge delivery rate was maintained at 1700 to 3500 viable particle per test. 4.2 Adjust the flow rate through the Anderson sampler to 28.3 L/min. 4.3 Deliver the challenge to the nebulizer using a syringe pump, Purge tubing and nebulizer of air bubbles. 4.4 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. 4.4.1 Initiate the aerosol challenge by turning on the air pressure and pump connected to thenebulizer, immediately begin sampling the aerosol using the Anderson sampler. 4.4.2 Time the challenge suspension to be delivered to the nebulizer for 1 min. 4.4.3 Time the air pressure and Anderson sampler to run for 2 min.

<table>
<tr><td></td><td>4.4.4 At the conclusion of the positive control ran remove plates from the Anderson sampler.
4.5 Place new agar plates into Anderson sampler and clamp the test specimen into the top of the Anderson sampler, with the outside of the specimen facing towards the bacterial challenge.
4.6 Repeat the challenge procedure for each test specimen.
4.7 Repeat a positive control after completion of the sample set.
4.8 Perform a negative control run by collecting a 2 min sample of the aerosol chamber, No bacterial challenge should be pumped into the nebulizer during the collection of the negative control.
4.9 Incubate agar plates at (37±2)℃for (48±4) h.
4.10 Count each of the six-stage plates of the Anderson sampler.</td></tr>
<tr><td>Calculation</td><td>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:
BFE% = (C-T) / C×100
C = average plate count total for test controls
T= plate count total for test sample
Note: The plate count total is available upon request.
All Test method acceptance criteria were meet.
Test Side: Outside
BFE Test Area: ~49cm^2
BFE Flow Rate:28.3 Litres per minute (L/min)
Condition Parameters: 85±5% relative humidity(RH) and 21±5℃ for a minimum of 4 hours
Test Specimen Dimensions: ~175mm×~95mm
Positive Control Average:2.155×10^3 (Specimen SGTS-20260200102.001- SGTS-20260200102.032); Negative Control Average: <1 CFU
MPS: 3.0±0.3μm;</td></tr>
<tr><td>Acceptance Criteria</td><td>The BFE positive control average shall be maintained at (1.7~3.5)×10^3
The MPS control average of the challenge aerosol shall be maintained at (3.0±0.3)μm.
Level 3: BFE≥98%, AQL:4%.</td></tr>
<tr><td>Deviation</td><td>None</td></tr>
<tr><td>Test Results</td><td>
<table>
<tr><th><u>Sample No.</u></th><th><u>BFE (%)</u></th></tr>
<tr><td>SGTS-20260200102.001</td><td>99.9</td></tr>
<tr><td>SGTS-20260200102.002</td><td>99.7</td></tr>
<tr><td>SGTS-20260200102.003</td><td>99.8</td></tr>
<tr><td>SGTS-20260200102.004</td><td>99.7</td></tr>
<tr><td>SGTS-20260200102.005</td><td>99.6</td></tr>
<tr><td>SGTS-20260200102.006</td><td>99.9</td></tr>
<tr><td>SGTS-20260200102.007</td><td>>99.9</td></tr>
<tr><td>SGTS-20260200102.008</td><td>99.9</td></tr>
<tr><td>SGTS-20260200102.009</td><td>99.9</td></tr>
</table>
</td></tr>
</table>

SGTS-20260200102.010	99.9
SGTS-20260200102.011	>99.9
SGTS-20260200102.012	99.9
SGTS-20260200102.013	99.9
SGTS-20260200102.014	99.9
SGTS-20260200102.015	99.8
SGTS-20260200102.016	99.3
SGTS-20260200102.017	99.9
SGTS-20260200102.018	98.8
SGTS-20260200102.019	>99.9
SGTS-20260200102.020	99.9
SGTS-20260200102.021	98.7
SGTS-20260200102.022	99.0
SGTS-20260200102.023	99.9
SGTS-20260200102.024	99.8
SGTS-20260200102.025	99.9
SGTS-20260200102.026	99.6
SGTS-20260200102.027	99.9
SGTS-20260200102.028	>99.9
SGTS-20260200102.029	99.7
SGTS-20260200102.030	99.8
SGTS-20260200102.031	>99.9
SGTS-20260200102.032	99.9

Test Instruments

Equipment No.	Equipment Name	Calibration Validity
SGT-MB001	Biosafety cabinet	2027.01.05
SGT-MB008	Constant temperature incubator	2027.01.05
SGT-MB010	BFE bacteria filtration efficiency tester	2027.01.05
SGT-MB002	Ultra-clean table	2027.01.05

Observations & Remarks

None

Conclusion

The test results are in accordance with the requirements.

SGT-202602001-03.02	**Sub-Micron Particulate Filtration**
Ref. Specs Section	ASTM F2100-2025, 9.3 ASTM F3502-2025, 8.1
Date Tested	2026.03.04
Sample Quantity	32
Sample No.	SGTS-20260200102.033~SGTS-20260200102.064
Test Environment	24.5℃, 32%RH
Test Location	Room 218/219,Building B, No.958, Kangqiao East Road, Pudong New Area, Shanghai, China
Test Method	**1. Purpose:** The purpose of this test method is to measure the Submicron particulate filtration efficiency of test method. **2. Test Specimen：** Specimens shall be pre-conditioned at (85±5) % relative humidity and (38±2.5)℃ for (25 ±1) h. After conditioning, the filters shall be sealed in an airtight, non-hygroscopic container and tested within 10 h. **3. Test Condition:** Flow rate: 60 L/min Aerosol: NaCl Aerosol concentration： 15 mg/m^3 Test temperature and humidity: 23.7℃ and 36.4% RH Treatment conditions: Place at(85 ±5)% relative humidity and (38 ±2.5)℃ for (25 ±1)h.
Calculation	None
Acceptance Criteria	Level 3: ≥85 %, AQL:4%.
Deviation	None

Test Results

Sample No.	Filtration Efficiency (%)	Sample No.	Filtration Efficiency (%)
SGTS-20260200102.033	90.8	SGTS-20260200102.049	88.0
SGTS-20260200102.034	91.8	SGTS-20260200102.050	87.5
SGTS-20260200102.035	91.1	SGTS-20260200102.051	88.3
SGTS-20260200102.036	89.9	SGTS-20260200102.052	91.0
SGTS-20260200102.037	89.8	SGTS-20260200102.053	90.6
SGTS-20260200102.038	90.1	SGTS-20260200102.054	91.5
SGTS-20260200102.039	90.8	SGTS-20260200102.055	91.5

	SGTS-20260200102.040	91.2	SGTS-20260200102.056	89.9
	SGTS-20260200102.041	91.6	SGTS-20260200102.057	90.3
	SGTS-20260200102.042	92.0	SGTS-20260200102.058	90.0
	SGTS-20260200102.043	91.9	SGTS-20260200102.059	91.1
	SGTS-20260200102.044	91.1	SGTS-20260200102.060	92.0
	SGTS-20260200102.045	91.6	SGTS-20260200102.061	91.2
	SGTS-20260200102.046	91.9	SGTS-20260200102.062	90.7
	SGTS-20260200102.047	90.4	SGTS-20260200102.063	89.4
	SGTS-20260200102.048	89.7	SGTS-20260200102.064	89.7
	Conclusion		Pass	

Test Instruments

Equipment No.	Equipment Name	Calibration Validity
SGT-PC023	Mask particulate filtration efficiency and airflow resistance tester	2026.05.18
SGT-EN007	Constant temperature humidity chamber	2027.01.04

Observations & Remarks

None

Conclusion

The test results are in accordance with the requirements.

SGT-202602001-03.03	**Synthetic Blood Penetration Test**
Ref. Specs Section	ASTM F1862/F1862M-24 Standard Test Method for Resistance of Medical Face Masks to Penetration by Synthetic Blood (Horizontal Projection of Fixed Volume at a Known Velocity)
Date Tested	2026.03.05
Sample Quantity	32
Sample No.	SGTS-20260200102.065~SGTS-20260200102.096
Test Environment	23.8℃, 45%RH
Test Location	Room 218/219,Building B, No.958, Kangqiao East Road, Pudong New Area, Shanghai, China
Test Method	**1. Purpose:** For evaluating the resistance of medical face masks to penetration by a fixed volume of synthetic blood at a high velocity. **2. Identification of Test System and Reagents** 2.1 Test specimens are complete masks. 2.2 Prior to testing, condition all test specimens for a minimum of 4h at (21±5)℃ and (85±5)% relative humidity **3. Test Procedure：** 3.1 Prepare the synthetic blood (35~45mN/m) for the test. 3.2 Determine the density of the synthetic blood. 3.3 Fill the reservoir with new synthetic blood. 3.4 Position the test specimen 30.5cm(12in) from the exit of the canula. 3.5 Set the reservoir pressure to the approximate pressure. 3.6 Place the targeting plate approximately 1cm away from the mask. 3.7 Set the valve timer to 0.5s. Collect and weigh the amount of fluid delivered (before the targeting hole). 3.8 Set the valve timer to 1.5s. Collect and weigh the amount of fluid delivered (before the targeting hole) 3.9. Calculate the difference in weight of the two spurts. For a test fluid with a density of 1.005. Table 1 gives the target difference in weight plus lower and upper limits for a velocity range within 2% of the target. Table 1 Target weight differences

Fluid Pressure (mm Hg)	Weight difference for 1s difference in spurt duration (g)		
	Min.	Target	Max.
80	2.456	2.506	2.556
120	3.002	3.063	3.124
160	3.466	3.537	3.607

3.10. Adjust the reservoir pressure and repeat steps 3.7 to 3.9 until the weight

	difference is within the target range. 3.11. Record the weight difference for the spurts exiting the nozzle. 3.12. Record the pressure in the reservoir. 3.13. Set the valve time to 0.5 s. Collect and weigh the amount of fluid passing through the targeting hole. 3.14. Set the valve time to 1.5 s. Collect and weigh the amount of fluid passing through the targeting hole. 3.15. The difference in weight between the 0.5 s and 1.5 s spurts through the targeting plate shall be within +2 %, - 5 % of the difference in weight from the nozzle. 3.16. If the differential weight is less than 95 % of the weight difference exiting the nozzle, check the aim of the stream to make sure it is passing cleanly through the targeting hole. 3.17. If the differential weight is more than 102 % of the weight difference exiting the nozzle, repeat the weight measurements exiting the nozzle (steps 3.7 to 3.11). 3.18. For standard synthetic blood, the timer duration can be estimated using the formula: (ρ is the density of the test fluid.) t=0.5 +(2xρ-g at 0.5 s) / (g at 1.5 s-g at 0.5 s). 3.19. Record the timer setting to use as the starting point for subsequent testing. 3.20. Mount a test specimen on the specimen holding fixture. If the mask contains pleats, spread the pleats out when mounting the mask onto the fixture to present a single layer of material as the target area. 3.21. Squirt the synthetic blood onto the test specimen for the calculated time. Ensure that the synthetic blood hits the target area of mask. 3.22. Inspect the inside surface for synthetic blood penetration within 10s of squirting the synthetic blood against the target area. 3.23. Report the results (none / penetration) for each test specimen at the test pressure. 3.24. After every 16 test articles, the synthetic blood was delivered to the measuring cylinder and weighed to ensure that the test device still delivered 2 ml of synthetic blood.
Calculation	None
Acceptance Criteria	Per ASTM F1862, an acceptable quality limit of 4.0% is met for a normal single sampling plan when ≥29 of 32 test articles show passing results. Level 3: 160mmHg, None penetration.
Deviation	None
Test Results	Test Pressure: 160mmHg

Sample No.	**Synthetic Blood Penetration**
SGTS-20260200102.065	None Seen
SGTS-20260200102.066	None Seen
SGTS-20260200102.067	None Seen
SGTS-20260200102.068	None Seen
SGTS-20260200102.069	None Seen

SGTS-20260200102.070	None Seen
SGTS-20260200102.071	None Seen
SGTS-20260200102.072	None Seen
SGTS-20260200102.073	None Seen
SGTS-20260200102.074	None Seen
SGTS-20260200102.075	None Seen
SGTS-20260200102.076	None Seen
SGTS-20260200102.077	None Seen
SGTS-20260200102.078	None Seen
SGTS-20260200102.079	None Seen
SGTS-20260200102.080	None Seen
SGTS-20260200102.081	None Seen
SGTS-20260200102.082	None Seen
SGTS-20260200102.083	None Seen
SGTS-20260200102.084	None Seen
SGTS-20260200102.085	None Seen
SGTS-20260200102.086	None Seen
SGTS-20260200102.087	None Seen
SGTS-20260200102.088	None Seen
SGTS-20260200102.089	None Seen
SGTS-20260200102.090	None Seen
SGTS-20260200102.091	None Seen
SGTS-20260200102.092	None Seen
SGTS-20260200102.093	None Seen
SGTS-20260200102.094	None Seen
SGTS-20260200102.095	None Seen
SGTS-20260200102.096	None Seen

Test Instruments

Equipment No.	Equipment Name	Calibration Validity
SGT-MB020	Surface Tension Meter	2027.01.04
SGT-PC001	Synthetic blood penetration test apparatus	2027.01.04
SGT-MB012	Analytical Balance	2027.01.04
SGT-MB046	Electrical Balance	2027.01.04
SGT-PC010	Density Tester	2026.05.21

Observations & Remarks

None

Conclusion

The test results are in accordance with the requirements.

Picture

Shanghai SUNGO Medical Technology Co., Ltd.

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Shanghai SUNGO Medical Technology Co.,Ltd. 上海沙格医疗科技有限公司 检验检测专用章

Test Samples

SGT-202602001-03.04	**Flammability Test**
Ref. Specs Section	16 CFR Part 1610 STANDARD FOR THE FLAMMABILITY OF CLOTHING TEXTILES
Date Tested	2026.03.05
Sample Quantity	32
Sample No.	SGTS-20260200102.097~SGTS-20260200102.128
Test Environment	24.1℃,42%RH
Test Location	Room 218/219,Building B, No.958, Kangqiao East Road, Pudong New Area, Shanghai, China
Test Method	**1. Purpose:** Materials used in the construction of medical face masks, shall meet the requirements for Class 1, normal flammability specified in 16 CFR Part 1610. **2. Test Specimen：** 2.1 The specimens should be cut from the most flammable area and direction of the sample. Specimens was cut in the warp/long direction. 2.2 Cut five specimens with dimensions 50 by 150 mm (2 by 6 in) with the long dimension in the direction. 2.3 Identify each specimen, but do not label the specimens on any part of the test area. Labels can be used on the holders to distinguish specimens. **3. Test Procedure：** **3.1 Sample Condition** 3.1.1 Place the specimen holding rack in the oven in such a way as to allow air flow around the specimens.Do not allow specimens to touch. 3.1.2 Close the oven door and allow the temperature to return to (105 ±3)℃ (221 ± 5 °F). Once the temperature has stabilized, start the timer for 30 minutes. 3.1.3 After 30 minutes, remove the specimen holding rack from the oven using insulated gloves. 3.1.4 Place the specimen holding rack in a desiccator to cool. **3.2 Test Procedure** 3.2.1 Before testing, ensure that the flame impingement timer is set to 1.0 s. Turn on gas supply to the test chamber and allow air to be displaced from the supply line. Use the flow control device to set the flow of butane to the igniter. Once gas is supplied to the igniter, light the igniter. 3.2.2 Once the flow has stabilized (approximately 5 minutes), adjust the flame length so that the test flame is 16 mm (5/8 in). The fume hood should be turned off before testing begins. Periodically check (and adjust if necessary) the test flame length during testing. Use the regulator on the gas tank to modify the flame length. 3.2.3Remove a mounted specimen from the desiccator. Replace the desiccator lid between tests Begin the test within 45 seconds of removing the mounted specimen from

	the desiccator. 3.2.4Place the mounted specimen on the specimen rack in the test chamber. 3.2.5Adjust the specimen rack so that the indicator finger just touches the surface of the specimen. 3.2.6Pull the stop thread through the guides of the specimen holder and test chamber. 3.2.7Attach the stop weight to the thread just below the stop weight thread guide. 3.2.8Set the timing device to zero. 3.2.9Close the door of the test chamber. Begin the test within 45 seconds of removing the mountedspecimen from the desiccator. 3.2.10 Activate the trigger device so that the flame impinges on the specimen for 1.0 s. The timing device starts automatically. 3.2.11At the end of the test, there will be either: A burn time-occurs when the specimen ignites and the flame travels up the specimen, breaking the stop thread. When the stop thread breaks, the stop weight falls and stops the timing device. No burn time -occurs when the specimen 1) Does not ignite. 2) Ignites, but self-extinguishes before reaching the stop thread. 3) Ignites, but the flame travels under the stop thread without breaking it. 3.2.12. Record the burn time from the timing device as well as any visual observations using the prescribed test result codes. If there is no burn time, record any visual observations using the test codes. 3.2.13At the end of each test, turn on the fume hood to exhaust any fumes or smoke produced during The test. The fume hood should be turned off once the effluent has been cleared. 3.2.14Before testing the next specimen, check that the fume hood has been turned off and reset the timing device to zero. 3.2.15Test five specimens. Determine the average burn time. For raised surface fabrics, determine the type of burn using the test results codes.
Calculation	Use the test results (time in seconds) and test observations to determine the test result code from the tables below. Use the appropriate test result code for each specimen in the test report, choose between the three codes listed in Table 2. Note that no time is reported for codes DNI or IBE. **Table 2 Test Result Codes** DNI — Did not ignite (No time) IBE — Ignite, but extinguished (No time) _ _sec — Actual burn time measured and recorded
Acceptance Criteria	(1) Class 1, Normal Flammability. Class 1 textiles exhibit normal flammability and are acceptable for use in clothing. This class shall include textiles which meet the minimum requirements set forth in paragraph (a)(1) or paragraph (a)(2) of this section. (2) Plain surface textile fabric. Such textiles in their original state and/or after being refurbished as describedin §1610.6(a) and § 1610.6(b), when tested as described in § 1610.6 shall be classified as Class 1, Normal flammability, when the burn time is 3.5

	seconds or more. (3) Raised surface textile fabric. Such textiles in their original state and/or after being refurbished as describedin §1610.6(a) and § 1610.6(b), when tested as described in §1610.6, shall be classified as Class 1, Normal flammability, when the burn time is more than 7 seconds, or when they burn with a rapid surface flash (0 to 7 seconds), provided the intensity of the flame is so low as not to ignite or fuse the base fabric. Requirements: Class 1, AQL: 4%
Deviation	None

Test Results

Sample No.	Test Result Codes
SGTS-20260200102.097	IBE
SGTS-20260200102.098	IBE
SGTS-20260200102.099	IBE
SGTS-20260200102.100	IBE
SGTS-20260200102.101	IBE
SGTS-20260200102.102	IBE
SGTS-20260200102.103	IBE
SGTS-20260200102.104	IBE
SGTS-20260200102.105	IBE
SGTS-20260200102.106	IBE
SGTS-20260200102.107	IBE
SGTS-20260200102.108	IBE
SGTS-20260200102.109	IBE
SGTS-20260200102.110	IBE
SGTS-20260200102.111	IBE
SGTS-20260200102.112	IBE
SGTS-20260200102.113	IBE
SGTS-20260200102.114	IBE
SGTS-20260200102.115	IBE
SGTS-20260200102.116	IBE
SGTS-20260200102.117	IBE
SGTS-20260200102.118	IBE
SGTS-20260200102.119	IBE
SGTS-20260200102.120	IBE
SGTS-20260200102.121	IBE
SGTS-20260200102.122	IBE
SGTS-20260200102.123	IBE
SGTS-20260200102.124	IBE
SGTS-20260200102.125	IBE
SGTS-20260200102.126	IBE
SGTS-20260200102.127	IBE

	SGTS-20260200102.128	IBE
	Classification: √ Class 1-Normal Flammability ☐ Class 2-Intermediate Flammability, Raised Surface ☐ Class 3-Rapid and Intense burning	

Test Instruments

Equipment No.	Equipment Name	Calibration Validity
SGT-SF018	Fabric flame retardant teste	2027.01.04
SGT-MB011	Gravimetric convection oven	2027.01.04
SGT-PC030	Dryer	N/A

Observations & Remarks

None

Conclusion

The test results are in accordance with the requirements.

SGT-202602001-03.05	**Differential Pressure Test**
Ref. Specs Section	EN 14683:2025Medical face masks - Requirements and test methods, Annex C
Date Tested	2026.03.05
Sample Quantity	32
Sample No.	SGTS-20260200102.129~ SGTS-20260200102.160
Test Environment	24.1℃, 42%RH
Test Location	Room 218/219,Building B, No.958, Kangqiao East Road, Pudong New Area, Shanghai, China
Test Method	**1. Purpose:** The test performed to measure the breathability of a surgical mask. **2. Identification of Test System and Reagents** 2.1 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. 2.2 Prior to testing, condition all test specimens for a minimum of 4 h at (21± 5)℃ and(85± 5)% relative humidity. **3. Test procedure：** 3.1 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. 3.2 The test specimen is placed across the 2.5 cm diameter orifice (total area 4.9 cm^2) and clamped into place so as to minimize air leaks and that the tested area of the specimen will be in line and across the flow of air. 3.3 The pump is started and that the tested area of the specimen will be in line and across the flow of air. 3.4 The manometers M1 and M2 are read and recorded. 3.5 The procedure described in steps 3.1~3.4 is carried out on 5 different areas of the mask and reading averaged.
Calculation	For each test material calculate the differential pressure Δ P of each tested area as follows: $\Delta P = X_{m1} - X_{m2}$ Where X_{m1} is the pressure in Pa, measured by manometer M1 - low pressure side of the material; X_{m2} is the pressure in Pa, measured by manometer M2 - high pressure side of the material; Δ P is the differential pressure of test material expressed in Pa.
Acceptance Criteria	The Delta P test flow rate shall be maintained at 8 L/min throughout the testing. Delta P: <29.4 mm H_2O AQL:4%.

Deviation	None

Test Results

Sample No.	Delta P(mm H_2O)					
	Location No.					Average
	1	2	3	4	5	
SGTS-20260200102.129	14.4	13.7	13.1	15.6	14.4	14.2
SGTS-20260200102.130	14.7	12.6	12.4	15.0	14.7	13.9
SGTS-20260200102.131	13.7	13.0	13.0	13.1	14.7	13.5
SGTS-20260200102.132	13.9	13.2	12.8	15.4	14.6	14.0
SGTS-20260200102.133	13.7	13.9	13.3	13.8	13.3	13.6
SGTS-20260200102.134	13.4	14.9	13.7	12.7	14.7	13.9
SGTS-20260200102.135	15.2	15.3	13.2	13.8	15.1	14.5
SGTS-20260200102.136	14.1	13.2	15.1	13.6	15.2	14.2
SGTS-20260200102.137	14.7	13.5	13.1	15.3	15.3	14.4
SGTS-20260200102.138	15.0	14.7	13.3	14.0	15.1	14.4
SGTS-20260200102.139	13.9	13.6	13.8	13.3	14.3	13.8
SGTS-20260200102.140	15.2	13.5	13.4	13.6	14.6	14.1
SGTS-20260200102.141	14.6	15.2	15.1	15.0	14.7	14.9
SGTS-20260200102.142	13.6	15.2	14.7	13.5	13.8	14.1
SGTS-20260200102.143	14.4	13.7	15.1	15.0	13.6	14.4
SGTS-20260200102.144	13.7	14.7	14.0	15.1	15.1	14.5
SGTS-20260200102.145	15.1	15.0	14.0	14.0	15.2	14.7
SGTS-20260200102.146	13.6	14.8	14.7	14.2	15.1	14.5
SGTS-20260200102.147	13.6	13.4	14.3	15.1	13.8	14.0
SGTS-20260200102.148	14.4	14.7	14.9	14.6	13.3	14.4
SGTS-20260200102.149	13.3	14.5	13.4	14.0	14.2	13.9
SGTS-20260200102.150	13.6	15.0	13.6	14.8	15.1	14.4
SGTS-20260200102.151	13.3	14.8	13.7	15.0	15.2	14.4
SGTS-20260200102.152	13.9	14.7	14.3	14.1	14.2	14.2
SGTS-20260200102.153	13.5	14.1	14.1	14.7	15.2	14.3
SGTS-20260200102.154	13.5	13.7	13.7	13.2	15.1	13.8
SGTS-20260200102.155	13.4	13.9	14.7	15.3	15.4	14.6
SGTS-20260200102.156	13.2	13.7	14.1	14.0	13.3	13.7
SGTS-20260200102.157	14.4	15.0	14.6	13.9	13.4	14.3
SGTS-20260200102.158	15.3	15.0	13.2	13.7	14.8	14.4
SGTS-20260200102.159	13.8	14.1	14.3	13.7	14.7	14.1
SGTS-20260200102.160	13.8	15.3	14.8	13.2	13.7	14.2

Test Instruments

Equipment No.	Equipment Name	Calibration Validity
SGT-ME002	Medical mask gas exchange pressure tester	2027.01.04

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Shanghai SUNGO Medical Technology Co.,Ltd. 上海沙格医疗科技有限公司 检验检测专用章

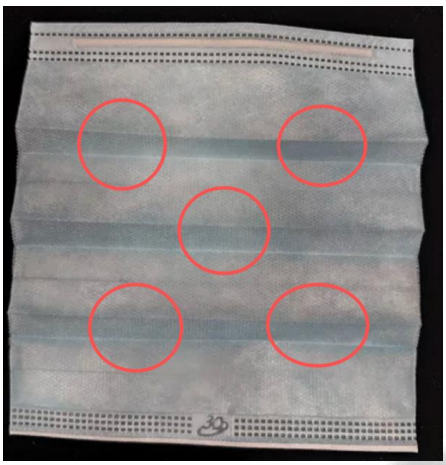
Observations & Remarks

None

Conclusion

The test results are in accordance with the requirements.

Pictures



Test Location of Sample

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The End of Report