

FFP2 Mask - DeltaMod



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SINOSTAR

EU TYPE EXAMINATION CERTIFICATE

Certificate No: 2163-PPE-1230

Respiratory protective devices, filtering half masks to protect against particles manufactured by

Hangzhou Shiwang Clothing Co., Ltd.

58 Wuqiang Road, Fengkou Town, Chun'an County, Hangzhou City, Zhejiang Province, China
are tested and evaluated according to

**EN 149:2001 + A1:2009 Respiratory Protective Devices -
Filtering Half Masks to Protect Against Particles -
Requirements, Testing, Marking**

Based on the type examination conducted with the evaluation of test reports, technical file according to Personal Protective Equipment Regulation (EU) 2016/425 Annex 5, it is approved that the product meets the requirements of the regulation.

Product Definition

Brand Name: CNQYJY **Model:** SW9550

Filtering half mask

Classification: FFP2 NR

Here by the manufacturer is allowed to use notified body number (2163) and can fix CE mark, as shown below, on the Category III product models given above, with;

- Issuing an appropriate EU Declaration of Conformity according to **Personal Protective Equipment Regulation (EU) 2016/425 Annex 9.**
- Ongoing successful performance in fulfilment of the requirements set out in **Personal Protective Equipment Regulation (EU) 2016/425** and harmonised standards, ensured by assessments based on **Annex 7 (Module C2)** or **Annex 8 (Module D)** of the regulation no later than 1 year from the beginning of serial production

This certificate is initially issued on 06/08/2020 and will be valid for 5 years, if there is no change in the relevant harmonised standard affecting the essential health and safety requirements.



Suat KACMAZ
UNIVERSAL CERTIFICATION
Director





HANGZHOU SHIWANG CLOTHING CO., LTD

We look forward to working with domestic and foreign business partners to create success together.

EC DECLARATION OF CONFORMITY

DOC/2020/2163PPE

This Declaration of Conformity is issued under the sole responsibility of the Manufacturer.
The Manufacturer or his authorized representative established in the Community;

Hangzhou Shiwang Clothing Co., Ltd.
F58 Wuqiang Road, Fenkou Town, Chun'an County
Hangzhou City, Zhejiang Province, China

Declares that the PPE described hereafter:

Filtering, protecting, disposable half mask KN95, Brand Name: CNQYJY Model SW9550

Is in conformity with the provisions of Annex V to the Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on Personal Protective Equipment and repealing Council Directive 89/686/EEC, and where such in case, with the national standard transposing harmonized standard no.

EN 149:2001 + A1:2009 (Classification FFP2NR)

Is subject to the procedure set out in Module B of Regulation (EU) 2016/425 under the supervision of the approved body:

Universal Certification and Surveillance Service Trade Ltd. Co.
Necip Fazil Bulvarı Keyap Sitesi E2 Blok No: 44/84 Yukarı Dudullu
Ümraniye-Istanbul, Turkey
Notified Body Identification Number: 2163

With the EU Type Examination Certificate No.:

2163-PPE-1230 issued on the 6th August 2020.

Is the subject to the conformity procedure based on internal production control plus supervised product checks and minimum intervals (module C2) under surveillance of the Notified Body:

Universal Certification and Surveillance Service Trade Ltd. Co.
Necip Fazil Bulvarı Keyap Sitesi E2 Blok No: 44/84 Yukarı Dudullu
Ümraniye-Istanbul, Turkey
Notified Body Identification Number: 2163

Issued by: 
Kevin Huang (Technical Director)
Hangzhou Shiwang Clothing Co., Ltd.

Place of issue: Hangzhou, China
Date of issue: 10th August 2020



中国认可
国际互认
检测
TESTING
CNASL0354

TEST REPORT



Report No.: F20035868

Applicant : Hangzhou Shiwang Clothing CO., Ltd



Zhejiang Academy of Science and Technology for Inspection and Quarantine

Add: No. 398, Jianshe 3 Road, Xiaoshan District, Hangzhou, Zhejiang, China

Tel: +86 0571 8352 7187/185193 Website: www.zaiq.org.cn



Report No.: F20035868

Report date: 2020-07-31

The information are provided by client(applicant):				
Sample Information	Sample Name:	Filtering half mask		
	Style No.:	SW9550		
Customer Information	Applicant:	Hangzhou Shiwang Clothing CO., Ltd		
	Address:	58 Wuqiang Road, Fenkou Town, Chun'an County, Hangzhou City, Zhejiang Province, China		
	Manufacturer:	Hangzhou Shiwang Clothing CO., Ltd		
	Manufacturer address:	58 Wuqiang Road, Fenkou Town, Chun'an County, Hangzhou City, Zhejiang Province, China		
The information are confirmed by testing organization:				
Test Information	Date of sample received:	2020-07-07	Testing period:	2020-07-07 to 2020-07-31
	Quantity:	150 Pieces		
	Sample description:	White mask		
	Basis of judgment:	EN 149:2001+A1:2009 FFP2 Respiratory protective devices—Filtering half masks to protect against particles —Requirements, testing, marking		
Test Conclusion	The items tested meet the requirements of EN 149:2001+A1:2009 FFP2			
Test Result	Please refer to next pages.			
Remark	*The results of total inward leakage and breathing resistance are from the subcontracted laboratory: Nanjing Customs District Industrial Products Inspection Center, with report number: 320003-2020-00671-1, certification number: CMA170020128365 and CNAS L0422.			

Edit:

叶伊文

Ye yiwen

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Zhao dong

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Test Results:

Clause 7.4 Packaging

(EN 149:2001+A1:2009 Clause 8.2)

Requirement	Results	Rating
Particle filtering half masks shall be offered for sale packaged in such a way that they are protected against mechanical damage and contamination before use.	Comply	Pass

Clause 7.5 Material

(EN 149:2001+A1:2009 Clause 8.2 & 8.3.1 & 8.3.2)

Requirement	Results	Rating
Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used. After undergoing the conditioning described in 8.3.1 none of the particle filtering half masks shall have suffered mechanical failure of the facepiece or straps. When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse. Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Comply	Pass

Clause 7.6 Cleaning and disinfecting

(EN 149:2001+A1:2009 Clause 8.4 & 8.5 & 8.11)

Requirement	Results	Rating
If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer. With reference to 7.9.2, after cleaning and disinfecting the re-usable particle filtering half mask shall satisfy the penetration requirement of the relevant class.	Not applicable (Not designed to be re-usable)	N/A

Clause 7.7 Practical performance

(EN 149:2001+A1:2009 Clause 8.4)

Requirement	Results	Rating
The particle filtering half mask shall undergo practical performance tests under realistic conditions. These general tests serve the purpose of checking the equipment for imperfections that cannot be determined by the tests described elsewhere in this standard.	No imperfections	Pass

Clause 7.8 Finish of parts

(EN 149:2001+A1:2009 Clause 8.2)

Requirement	Results	Rating
Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	No sharp edges or burrs	Pass



Clause 7.9.1 Total inward leakage*

(EN 149:2001+A1:2009 Clause 8.5)

Requirement	Results	Rating
For particle filtering half masks fitted in accordance with the manufacturer's information, at least 46 out of the 50 individual exercise results (i.e. 10 subjects x 5 exercises) for total inward leakage shall be not greater than: 25% for FFP1, 11% for FFP2, 5% for FFP3 and, in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than: 22% for FFP1, 8% for FFP2, 2% for FFP3	47 out of the 50 individual exercise results \leq 11% 8 out of the 10 individual wearer arithmetic means \leq 8%	Pass

Table 7.9.1-A Inward leakage test data

Subject	Sample No.	Condition	Walk (%)	Head side/side (%)	Head up/down (%)	Talk (%)	Walk (%)	Mean (%)
ZH	1	As received	5.4	7.6	7.3	5.9	6.3	6.5
WQ	2		11.8	10.7	10.3	9.7	10.2	10.5
WXX	3		7.3	6.4	8.1	8.7	6.2	7.3
ZSQ	4		9.3	6.4	6.5	6.7	8.1	7.4
DYC	5		5.4	5.2	6.1	5.9	6.3	5.8
CDL	6	Temperature conditioned	12.1	10.9	10.7	11.3	10.9	11.2
SQY	7		8.3	6.9	6.5	5.4	7.8	7.0
LIG	8		7.3	6.3	5.1	5.2	6.8	6.1
TJ	9		5.2	5.7	4.9	6.1	6.3	5.6
ZY	10		5.6	4.7	4.3	4.6	5.8	5.0

Table 7.9.1-B Facial dimensions

Subject	Face Length (mm)	Face Width (mm)	Face Depth (mm)	Mouth Width (mm)
ZH	125	146	119	50
WQ	116	137	120	51
WXX	108	126	105	54
ZSQ	107	140	108	53
DYC	110	142	110	50
CDL	115	144	109	51
SQY	113	138	110	52
LIG	109	140	112	55
TJ	98	116	110	49
ZY	109	123	109	47

Clause 7.9.2 Penetration of filter material

(EN 149:2001+A1:2009 Clause 8.11 & EN 13274-7:2019)

Requirement			Results	Rating
The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table.			Detail refer to Table 7.9.2	Pass
Classification	Sodium chloride test 95 L/min	Paraffin oil test 95 L/min		
FFP1	≤20%	≤20%		
FFP2	≤6%	≤6%		
FFP3	≤1%	≤1%		

Table 7.9.2 Penetration of filter material

Aerosol	Condition	Sample No.	Penetration (%)
Sodium chloride test	As received	11	0.322
		12	0.168
		13	0.162
	Simulated wearing treatment	14	0.119
		15	0.124
		16	0.282
	Mechanical strength+ Temperature conditioned	17	0.346
		18	0.387
		19	0.367
Paraffin oil test	As received	20	1.074
		21	1.187
		22	1.203
	Simulated wearing treatment	23	1.997
		24	1.791
		25	1.586
	Mechanical strength+ Temperature conditioned	26	1.427
		27	1.924
		28	2.515

Flow conditioning: single filter: 95.0 L/min

Clause 7.10 Compatibility with skin

(EN 149:2001+A1:2009 Clause 8.4 & 8.5)

Requirement	Results	Rating
Materials that may come into contact with the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health.	No irritation or any other adverse effect to health	Pass



Clause 7.11 Flammability

(EN 149:2001+A1:2009 Clause 8.6)

Requirement	Results	Rating
When tested, the particle filtering half mask shall not burn or not to continue to burn for more than 5s after removal from the flame.	Detail refer to Table 7.11	Pass

Table 7.11 Flammability

Condition	Sample No.	Result
As received	29	Not burn
	30	Not burn
Temperature conditioned	31	Not burn
	32	Not burn

Clause 7.12 Carbon dioxide content of the inhalation air

(EN 149:2001+A1:2009 Clause 8.7)

Requirement	Results	Rating
The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0 % (by volume).	Detail refer to Table 7.12	Pass

Table 7.12 Carbon dioxide content of the inhalation air

Condition	Sample No.	Result (%)
As received	33	0.66
	34	0.69
	35	0.82
		Mean value: 0.72

Clause 7.13 Head harness

(EN 149:2001+A1:2009 Clause 8.4 & 8.5)

Requirement	Results	Rating
The head harness shall be designed so that the particle filtering half mask can be donned and removed easily. The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position and be capable of maintaining total inward leakage requirements for the device.	Comply	Pass

Clause 7.14 Field of vision

(EN 149:2001+A1:2009 Clause 8.4)

Requirement	Results	Rating
The field of vision is acceptable if determined so in practical performance tests.	Comply	Pass



Clause 7.15 Exhalation valve

(EN 149:2001+A1:2009 Clause 8.2 & 8.9.1 & 8.3.4 & 8.8)

Requirement	Results	Rating
<p>A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.</p> <p>If an exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device that may be necessary for the particle filtering half mask to comply with 7.9.</p> <p>Exhalation valve(s), if fitted, shall continue to operate correctly after a continuous exhalation flow of 300 L/min over a period of 30 s.</p> <p>When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s.</p>	Not applicable (No exhalation valve)	N/A

Clause 7.16 Breathing resistance

(EN 149:2001+A1:2009 Clause 8.9)

Requirement	Results	Rating																						
<p>The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table.</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th rowspan="3">Classification</th> <th colspan="3">Maximum permitted resistance (mbar)</th> </tr> <tr> <th colspan="2">Inhalation</th> <th>Exhalation</th> </tr> <tr> <th>30L/min</th> <th>95L/min</th> <th>160L/min</th> </tr> </thead> <tbody> <tr> <td>FFP1</td> <td>0.6</td> <td>2.1</td> <td>3.0</td> </tr> <tr> <td>FFP2</td> <td>0.7</td> <td>2.4</td> <td>3.0</td> </tr> <tr> <td>FFP3</td> <td>1.0</td> <td>3.0</td> <td>3.0</td> </tr> </tbody> </table>	Classification	Maximum permitted resistance (mbar)			Inhalation		Exhalation	30L/min	95L/min	160L/min	FFP1	0.6	2.1	3.0	FFP2	0.7	2.4	3.0	FFP3	1.0	3.0	3.0	Detail refer to Table 7.16	Pass
Classification		Maximum permitted resistance (mbar)																						
		Inhalation		Exhalation																				
	30L/min	95L/min	160L/min																					
FFP1	0.6	2.1	3.0																					
FFP2	0.7	2.4	3.0																					
FFP3	1.0	3.0	3.0																					

Table 7.16 Breathing resistance (mbar)

Test item	Condition	Sample No.	A	B	C	D	E
Inhalation (30 L/min)	As received	36	0.53	0.52	0.52	0.54	0.53
		37	0.52	0.56	0.54	0.53	0.52
		38	0.51	0.57	0.52	0.54	0.51
	Simulated wearing treatment	39	0.52	0.57	0.53	0.54	0.56
		40	0.56	0.53	0.51	0.53	0.54
		41	0.52	0.55	0.51	0.58	0.53
	Temperature conditioned	42	0.46	0.44	0.47	0.46	0.45
		43	0.42	0.47	0.45	0.48	0.42
		44	0.47	0.44	0.46	0.48	0.47

Test item	Condition	Sample No.	A	B	C	D	E
Inhalation (95 L/min)	As received	36	1.91	1.90	1.94	1.93	1.92
		37	1.94	1.92	1.93	1.90	1.93
		38	1.94	1.90	1.93	1.92	1.90
	Simulated wearing treatment	39	1.82	1.80	1.84	1.82	1.86
		40	1.87	1.85	1.82	1.88	1.80
		41	1.84	1.87	1.82	1.80	1.82
	Temperature conditioned	42	1.62	1.64	1.60	1.59	1.63
		43	1.64	1.60	1.58	1.60	1.62
		44	1.64	1.59	1.63	1.62	1.60
Exhalation (160 L/min)	As received	36	2.74	2.69	2.72	2.76	2.70
		37	2.71	2.70	2.74	2.73	2.72
		38	2.76	2.75	2.72	2.70	2.72
	Simulated wearing treatment	39	2.64	2.60	2.63	2.65	2.62
		40	2.63	2.64	2.65	2.63	2.65
		41	2.64	2.61	2.63	2.60	2.64
	Temperature conditioned	42	2.46	2.47	2.48	2.47	2.49
		43	2.43	2.46	2.46	2.40	2.44
		44	2.47	2.42	2.45	2.44	2.46

A: facing directly ahead; B: facing vertically upwards; C: facing vertically downwards; D: lying on the left side; E: lying on the right side

Clause 7.17 Clogging

(EN 149:2001+A1:2009 Clause 8.9 & 8.10)

Requirement	Results	Rating
<p>7.17.2 Breathing resistance:</p> <p>7.17.2.1 Valved particle filtering half masks After clogging the inhalation resistances shall not exceed FFP1:4mbar, FFP2:5mbar, FFP3:7mbar at 95 L/min continuous flow; The exhalation resistance shall not exceed 3mbar at 160 L/min continuous flow.</p> <p>7.17.2.2 Valveless particle filtering half masks After clogging the inhalation and exhalation resistances shall not exceed FFP1:3mbar, FFP2:4mbar, FFP3:5mbar at 95 L/min continuous flow.</p> <p>7.17.3 Penetration of filter material: All types (valved and valveless) of particle filtering half masks claimed to meet the clogging requirement shall also meet the requirements given in 7.9.2, for the Penetration test according to EN 13274-7, after the clogging treatment.</p>	<p>Not applicable (Single shift use only)</p>	<p>N/A</p>

Clause 7.18 Demountable parts

(EN 149:2001+A1:2009 Clause 8.2)

Requirement	Results	Rating
All demountable parts (if fitted) shall be readily connected and secured, where possible by hand.	Not applicable (No demountable parts)	N/A

Sample photo



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

STATEMENT

1. Our organization guarantees impartiality, independence and honesty of inspection, and is responsible for the content of report, except for the information provided by the client. The client shall not use the test results for improper publicity without authorization.
2. Our organization shall not be responsible for the authenticity of the information provided by the client, nor shall bear the risks arising in the process of sample delivery. Test result is only responsible for the sample.
3. This report is invalid without the dedicated seal for inspection and testing report and the paging seal.
4. This report is invalid without the signature of the approver (authorized signatory).
5. Test report is invalid if altered.
6. The duplicate report without the "dedicated seal for inspection and testing" of the institution is invalid.
7. Each page of the report is an integral part of the report. Our organization shall not be responsible for any misunderstanding or consequences arising from the improper use of the test report by the user.
8. Without the CMA seal, the report is invalid for social certification.

Test institute: Zhejiang Academy of Science and Technology for Inspection and Quarantine

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