

#### PRODUCT INFORMATION SHEET FOR FFP2 NR FLAT FOLD MASK WITH VALVE

# **TECHNICAL DATASHEET**

MODEL NO.: 9139

Description: Particle Filtering Half Mask

Standard: EN149:2001+A1:2009

Regulation (EU) 2016/425

Packing: 20 PCS/BAG, 1 BAG/BOX, 20 BOXES/CARTON











中国认可 国际互认 检测 TESTING CNAS L1499

# National Quality Supervision and Testing Center for Personal Protective Equipment (Beijing)

#### (Testing Laboratory for Labour Protection Products of Beijing Municipal Institute for Labour Protection)

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#### **TEST REPORT**

#### Particulate respirator-half facepiece

EN 149: 2001 +A1: 2009 Respiratory protective devices — Filtering half masks to protect against particles — Requirements, testing, marking

**Product:** Particle filtering half mask

**Report No:** 2020 (D) - 0477

Client: CCQS Certification Services Limited

Model (s): 9139

Date(s) of tests: 2020.04.26-2020.05.23

#### DESCRIPTION OF SAMPLES

General Information

Classification
FFP2 NR

Main Components
White folding mask with valve

Manufacturer Jinhua GIME Safety Protective Product Co., Ltd.

Manufacturer Address No. 178, Yi Village, Bailongqiao Town, Jinhua City, Zhejiang Province, P. R. China

Signed:

陈倬为 Chen Zhuowei Authorized Signatory, Lab Director

Issued: 2020.5.23

Page 1 of 10

Report No: 2020 (D) - 0477 Page 2 of 10

# **Conditions:**

The test results presented in this report relate to the samples tested only.

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The authenticity of this test report and its contents can be verified by contacting the laboratory.

**Test Results** 

7.3 Visual inspection Not tested<sup>1</sup>

The visual inspection shall include the marking and information supplied by the manufacturer.

Note1: As requested by the client, marking and information supplied by the manufacturer was not inspected.

7.4 Package Pass<sup>2</sup>

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.

Note2: In accordance with the requirement.

7.5 Material Pass<sup>3</sup>

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.

Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.

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.

Note3: No mechanical failure after undergoing the conditioning described in 8.3.1. No collapse when conditioned in accordance with 8.3.1 and 8.3.2.

#### 7.6 Cleaning and disinfecting

 $N/A^4$ 

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.

Note4: Single shift use only.

# 7.7 Practical performance

Pass<sup>5</sup>

The particle filtering half mask shall undergo practical performance tests under realistic conditions. **Note5: No imperfections.** 

7.8 Finish of parts

Pass<sup>6</sup>

Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs. Note6: No sharp edges or burrs.

#### 7.9.1 Total inward leakage

Pass<sup>7</sup>

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

Note7: FFP2 respirator. Test results are shown in Annex A Table 7.9.1-A&B.

#### 7.9.2 Penetration of filter material

Pass8

The penetration of the filter of the particle filtering half mask shall meet the requirements of Table 1.

Sodium chloride test 95 l/min

Paraffin oil test 95 l/min

FFP1 ≤20%

≤20%

Report No: 2020 (D) - 0477 Page 4 of 10

FFP2  $\leq 6\%$   $\leq 6\%$  FFP3  $\leq 1\%$   $\leq 1\%$ 

Note8: FFP2 respirator. Test results are shown in Annex A Table 7.9.2.

#### 7.10 Compatibility with skin

Pass9

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.

Note9: No irritation or any other adverse effect to health.

7.11 Flammability Pass<sup>10</sup>

When tested, the particle filtering half mask shall not burn or not to continue to burn for more than 5 s after removal from the flame.

Note10: Test results are shown in Annex A Table 7.11.

#### 7.12 Carbon dioxide content of the inhalation air

Pass<sup>11</sup>

The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume) Note11: Test results are shown in Annex A Table 7.12.

7.13 Head harness Pass<sup>12</sup>

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.

Note12: Head harness can be donned and removed easily, adjustable or self-adjusting and have sufficiently robust to hold the particle filtering half mask firmly.

7.14 Field of vision Pass<sup>13</sup>

The field of vision is acceptable if determined so in practical performance tests.

Note13: Pass the practical performance tests.

7.15 Exhalation valve

A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.

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.

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.

When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s.

Note14: (a)Valve(s) can function correctly in all orientations. (b)Exhalation valve(s) are protected against dirt and mechanical damage. (c)Exhalation valve(s) can operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s. (d)The housing can withstand axially a tensile force of 10 N applied for 10 s.

#### 7.16 Breathing resistance

Pass<sup>15</sup>

Classification	Maximum permitted resistance (mbar)						
	Inhalation		Exhalation				
	30 l/min	95 l/min	160 l/min				
FFP1	0.6	2.1	3.0				
FFP2	0.7	2.4	3.0				
FFP3	1.0	3.0	3.0				

Note15: FFP2 respirator. Test results are shown in Annex A Table 7.16.

Report No: 2020 (D) - 0477 Page 5 of 10

7.17 Clogging N/A<sup>16</sup>

#### 7.17.2 Breathing resistance

Valved particle filtering half masks:

After clogging the inhalation resistances shall not exceed:

FFP1: 4 mbar, FFP2: 5 mbar, FFP3: 7 mbar at 95L/min continuous flow

The exhalation resistance shall not exceed 3 mbar at 160 L/min continuous flow

Valveless particle filtering half masks

After clogging the inhalation and exhalation resistances shall not exceed:

FFP1: 3 mbar, FFP2: 4 mbar, FFP3: 5 mbar at 95L/min continuous flow

#### 7.17.3 Penetration of filter material

Soc	lium chloride test 95 l/min	Paraffin oil test 95 l/min
FFP1	€20%	€20%
FFP2	≪6%	≪6%
FFP3	≤1%	≤1%
Notal C. Cinala	-L:64	

Note16: Single shift use only.

#### 7.18 Demountable parts

 $N/A^{17}$ 

All demountable parts (if fitted) shall be readily connected and secured, where possible by hand Note17: No demountable parts.

9 Marking Not tested

# 9.1 Packaging

The following information shall be clearly and durably marked on the smallest commercially available packaging or legible through it if the packaging is transparent.

- **9.1.1** The name, trademark or other means of identification of the manufacturer or supplier.
- **9.1.2** Type-identifying marking.
- **9.1.3** Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is re-usable. Example: FFP2 R D.

- **9.1.4** The number and year of publication of this European Standard.
- **9.1.5** At least the year of end of shelf life. The end of shelf life may be informed by a pictogram as shown in Figure 12a, where yyyy/mm indicates the year and month.
- **9.1.6** The sentence 'see information supplied by the manufacturer', at least in the official language(s) of the country of destination, or by using the pictogram as shown in Figure 12b.
- **9.1.7** The manufacturer's recommended conditions of storage (at least the temperature and humidity) or equivalent pictogram, as shown in Figures 12c and 12d.
- **9.1.8** The packaging of those particle filtering half masks passing the dolomite clogging test shall be additionally marked with the letter "D". This letter shall follow the classification marking preceded by a single space.

#### 9.2 Particle filtering half mask

Particle filtering half masks complying with this European Standard shall be clearly and durably marked with the following:

- 9.2.1 The name, trademark or other means of identification of the manufacturer or supplier.
- **9.2.2** Type-identifying marking.



# **Module B EU Type-Examination Certificate**

For the requirements of PPE Regulation 2016/425

Certificate No.: CE-PC-200417-265-01-9A

Certificate Jinhua GIME Safety Protective Product Co., Ltd.

holder: No. 178, Yi Village, Bailongqiao Town, Jinhua City, Zhejiang Province,

P. R. China

Product: Particle Filtering Half Mask

Detailed product description listed in the Annex

Model(s): 9122-1, 9139

Standard(s): EN 149:2001+A1:2009

Respiratory protective devices - Filtering half masks to protect against

particles - Requirements, testing, marking

Issue date: 2020-07-10

**Revision date:** 2020-07-10

**Expiry date:** 2021-07-09

The product(s) on this certificate and the Technical File have been assessed and found to be in conformance with the applicable Essential Health and Safety Requirements in Annex II of the PPE regulation 2016/425.

Any changes to the design, manufacturing location or manufacture of the PPE product certified here must be advised to CCQS Certification Services Limited for review.

CE marking shall not be applied until the requirements of all the PPE Regulation 2016/425 and relevant EN Harmonised standards and/or Technical specifications have been met.

If the certified product is Category III then this certificate is only valid if used in conjunction with Conformity Assessment against Module C2 or Module D.

This certificate remains the property of CCQS and maybe withdrawn at any time if it is considered that the equipment is no longer in conformity with the requirements of the PPE Regulation 2016/425.



Approved by Ireland Government as a Notified Body for CE Marking No.2834





# **CCQS Certification Services Limited**

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Tel: +00 353 1 588 6920 Website: www.ccqs.co.uk E-mail: verify@ccqs.ie If in any doubt about the integrity of this certificate, please contact CCQS by email to verify.



# Module B EU Type-Examination Certificate Annex

For the requirements of PPE Regulation 2016/425

Certificate No.: CE-PC-200417-265-01-9A

### Applicable standards and specification:

EN 149:2001+A1:2009 Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking

Model reference	Product description			
9122-1	Cup shape half mask with elastic headharness, no valves, external metal nose clip			
	Classification: FFP2 NR			
	Test report No.: 2020(D) - 0476			
9139	Folding filtering half mask with elastic headharness with			
	exhalation valve, external metal nose clip			
	Classification: FFP2 NR			
	Test report No.: 2020(D) - 0477			

Certificate Revision	Revision date S re/a Revision details
Α	2020-07-10 ** * * Initial issue



# **CCQS Certification Services Limited**

Block 1 Blanchardstown Corporate Park, Ballycoolin Road, Blanchardstown, Dublin15, D15 AKK1, Ireland

Report No: 2020 (D) - 0477 Page 6 of 10

**9.2.3** The number and year of publication of this European Standard.

9.2.4 Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is re-usable. Example: FFP2 R D.

- **9.2.5** If appropriate the letter D (dolomite) in accordance with clogging performance. This letter shall follow the classification marking preceded by a single space
- **9.2.6** Sub-assemblies and components with considerable bearing on safety shall be marked so that they can be identified.

End of Test Results	
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Report No: 2020 (D) - 0477 Page 7 of 10

# **Annex A: Summarization of Test Data**

Table 7.9.1-A Inward leakage test data

Test specification: EN 149-2001 Clause 8.5

Subject	Sample No.	Condition	Walk(%)	Head Side/side(%)	Head up/down(%)	Talk(%)	Walk(%)	Mean(%)
Yi	1	A.R.	6.35	6.66	6.66	6.77	6.43	6.6
Gong	2	A.R.	7.98	8.10	8.25	8.13	8.19	8.1
Yu	3	A.R.	7.15	7.48	7.50	7.17	7.24	7.3
Hu	4	A.R.	6.61	6.95	6.88	6.78	6.95	6.8
Xu	5	A.R.	7.15	7.62	7.57	7.59	7.55	7.5
Deng	6	T.C.	8.42	8.59	8.48	8.58	8.65	8.5
Zhang	7	T.C.	7.16	7.17	7.48	7.50	7.43	7.3
Zhi	8	T.C.	6.87	7.32	6.91	7.07	7.03	7.0
Fang	9	T.C.	6.3	6.88	6.34	6.47	6.71	6.5
Lv	10	T.C.	7.11	7.62	7.52	7.16	7.27	7.3
	dividual exer <u>0</u> individual	I	Pass					

**Table 7.9.1-B Facial dimension** 

Table 7.3.1-D Facial difficultion							
Subject	Face length	Face Width	Face Depth	Mouth Width			
Yi	120	130	109	59			
Gong	122	140	115	65			
Yu	119	160	139	55			
Hu	112	122	119	63			
Xu	110	130	118	60			
Deng	115	119	110	59			
Zhang	112	123	113	55			
Liu	103	130	100	50			
Zhi	118	139	130	63			
Fang	115	129	120	50			
Chen	116	150	132	56			
Lv	110	121	110	53			

Report No: 2020 (D) - 0477 Page 8 of 10

Table -7.9.2 Penetration of filter material

Test specification: EN 149-2001 Clause 8.11

Aerosol	Condition	Sample No.	Penetration (%)	Assessment			
		11	0.479				
	As received	12	0.548				
		13	0.512				
		14	0.617				
Sodium chloride test	Simulated wearing treatment	15	0.624				
		16	0.651				
		17	0.786				
	Mechanical strength+ Temperature conditioned	18	0.715				
		19	0.745				
		20	5.31	Pass			
	As received	21	5.22				
		22	5.11				
		23	5.31				
Paraffin oil test	Simulated wearing treatment	24	5.41				
		25	5.47				
		26	5.41				
	Mechanical strength+ Temperature conditioned	27	5.37				
		28	5.45				
Flow conditioning: Single filter: 95.0 L/min							

# **Table 7.11 Flammability**

Test specification: EN 149-2001 Clause 8.6

Condition	Sample No.	Result	Assessment
A 1	29	Burn for 1 s	
As received	30	Burn for 1 s	D
Temperature	31	Burn for 1 s	Pass
conditioned	32	Burn for 1 s	

Report No: 2020 (D) - 0477 Page 9 of 10

Table 7.12 Carbon dioxide content of the inhalation air

Test specification: EN 149-2001 Clause 8.7

Condition	Sample No.	Result	Assessment	
	33	0.41%		
As received	34	0.38%	Mean value 0.4%	Pass
	35	0.39%		

# **Table 7.16 Breathing resistance (mbar)**

Test specification: EN 149-2001 Clause 8.9

Test specification. Liv 147-2001 Clause 8.7																	
	Flow rate				36			37				38					
	Flow	Tate	Α	В	C	D	Е	Α	В	С	D	Е	A	В	С	D	Е
As received	Inhalation	30 l/min	0.4	0.5	0.5	0.5	0.6	0.4	0.6	0.5	0.6	0.5	0.4	0.5	0.6	0.4	0.6
	innalation	95 l/min	1.5	1.6	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.7	1.5	1.6	1.6	1.7	1.5
	Exhalation	160 l/min	1.7	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.8	1.9	1.7	1.7	1.7	1.9	1.8
	El	,			39					40			41				
Simulated	Flow	rate	Α	В	С	D	Е	Α	В	С	D	Е	Α	В	С	D	Е
wearing	Inhalation	30 l/min	0.6	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.5
treatment	Inhalation	95 l/min	1.5	1.7	1.7	1.5	1.5	1.5	1.6	1.5	1.7	1.6	1.6	1.6	1.7	1.7	1.6
	Exhalation	160 l/min	1.7	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.8
	E1	4-		42			43			44							
T	Flow	Flow rate		В	С	D	Е	Α	В	С	D	Е	A	В	С	D	Е
Temperature conditioned	Inhalation	30 l/min	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.6	0.4	0.4	0.6	0.5	0.5	0.6
conditioned	Illialation	95 l/min	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.5	1.7	1.7	1.6	1.6	1.7	1.6	1.5
	Exhalation	160 l/min	1.8	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.7
	El				45			46							47		
T1	Flow	rate	Α	В	С	D	Е	Α	В	С	D	Е	Α	В	С	D	Е
Flow	T1 1 - 4: -	30 l/min	0.6	0.5	0.6	0.4	0.5	0.5	0.5	0.6	0.4	0.4	0.6	0.6	0.5	0.4	0.4
conditioned	Inhalation	95 l/min	1.6	1.7	1.6	1.5	1.6	1.7	1.6	1.5	1.6	1.7	1.7	1.6	1.6	1.6	1.6
	Exhalation	160 l/min	1.7	1.9	1.8	1.8	1.9	1.9	1.9	1.7	1.9	1.9	1.9	1.9	1.9	1.8	1.8
Assessment							Pas	S									

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

End of Annex A	

# Report No: 2020 (D) - 0477

# ANNEX B PHOTOS OF SAMPLES







**End of Annex B**