

# Test Report

**Applicant:** Chuzhou Daddy's Choice Science and Technology Co.,Ltd.  
**Address:** Middle of Nanjing Road Langya District Chuzhou City Anhui Province

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

Product name: Protective Face Mask  
Model: KV001  
Brand:



Manufacturer: Chuzhou Daddy's Choice Science and Technology Co.,Ltd.  
Address: Middle of Nanjing Road Langya District Chuzhou City Anhui Province  
Classification: FFP2 NR  
Sample quantity: 70Pcs  
C2 Sampling done by  
APPLUS+ with ID number : 20/32301493

Sample Received Date: Sep. 08, 2020  
Testing Period: Sep. 08, 2020~ Sep. 14, 2020

**Test Requirement:**

According to the requirement of the Module C2 (SPC CE-062\_EN M3 PPE ) of Applus+, the test item(s) of the sample is according to the standard EN149:2001+A1:2009.

**Test Result(s):** Please refer to the following page(s)

**Test Method:** Please refer to the following page(s)

Compiled by:

Reviewed by:

Approved by:

Date:

2020-09-15



### Summary of assessment\*

Clause	Assessment
7.3 Visual inspection	Pass
7.5 Material	Pass
7.8 Finish of parts	Pass
7.9.1 Total inward leakage	Pass
7.9.2 Penetration of filter material	Pass
7.12 Carbon dioxide content of the inhalation air	Pass
7.16 Breathing resistance	Pass

### Key

Pass	Requirement satisfied.
NRq	The clauses were not required.
Fail	Requirement not satisfied. Refer to the "Result details" section for more information.
N.A.	Requirement not applicable.

Test	Uncertainty
Total inward leakage	6.40 %
Penetration of filter material (NaCl)	1.60 %
Penetration of filter material (Paraffin Oil)	1.78 %
Carbon dioxide content of the inhalation air	5.34 %
Breathing resistance (30 L/min)	3.60 %
Breathing resistance (95 L/min)	2.20 %
Breathing resistance (160 L/min)	2.00 %

\* Assessment relates only to those specimens which were tested and are the subject of this report.



## Test Result

Respiratory Protective Devices — Filtering Half Masks to Protect against Particles — Requirements, Testing, Marking  
(EN 149:2001+A1:2009)

### Clause 7.3 Visual inspection

Test Requirement	Results	Comment
Marking and the information supplied by the manufacturer, requirements refer to clause 9 and clause 10.	Comply	Pass

### Clause 7.5 Material

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

Test Requirement	Results	Comment
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.	Comply	Pass
After undergoing the conditioning described in 8.3.1 none of the particle filtering half masks shall have suffered mechanical failure of the face piece or straps.	Comply	Pass
When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.	Comply	Pass
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 7.8 Finish of Parts

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

Test Requirement	Results	Comment
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)

Test Requirement	Results	Comment
<p>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:</p> <p>25% for FFP1 11% for FFP2 5% for FFP3</p> <p>and, in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than:</p> <p>22% for FFP1 8% for FFP2 2% for FFP3</p>	Detail refer to Appendix 1	Pass

### Appendix 1: Summarization of Test Data

Subject	Sample	Condition	Normal Breathing (%)	Head Side/Side (%)	Head Up/Down (%)	Speak Loudly (%)	Normal Breathing (%)	Mean (%)
Gu	1#	A.R.	2.9	3.0	3.5	3.7	2.8	3.18
Hu	2#	A.R.	5.4	5.8	6.0	6.5	5.3	5.80
Wang	3#	A.R.	6.6	6.9	7.0	7.2	6.5	6.84
Long	4#	A.R.	2.7	2.9	3.4	3.9	2.8	3.14
Gao	5#	A.R.	4.3	4.7	4.9	5.2	4.2	4.66
Zhao	6#	T.C.	6.0	6.5	6.9	7.7	5.9	6.60
Lang	7#	T.C.	4.8	5.2	5.5	5.6	4.7	5.16
Ding	8#	T.C.	5.3	5.9	6.2	6.6	5.2	5.84
Kong	9#	T.C.	6.1	6.9	7.2	7.8	6.0	6.80
Zeng	10#	T.C.	7.2	7.2	7.9	8.1	7.0	7.48



## Facial Dimension:

Subject	Length of Face ( mm )	Width of Face ( mm )	Depth of Face ( mm )	Width of Mouth ( mm )
Gu	114	127	119	52
Hu	128	114	135	53
Wang	112	136	122	50
Long	119	134	128	51
Gao	130	154	144	52
Zhao	134	160	148	51
Lang	126	140	128	48
Ding	117	130	122	50
Kong	134	149	138	50
Zeng	122	145	140	52

**Clause 7.9.2 Penetration of Filter Material**

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

Test Requirement			Results	Comment
The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table.			Detail refer to Appendix 2	Pass
Classification	Maximum penetration of test aerosol (%)			
	Sodium chloride test 95 L/min	Paraffin oil test 95 L/min		
FFP1	20	20		
FFP2	6	6		
FFP3	1	1		



## Appendix 2: Summarization of Test Data

### Penetration of filter material

Aerosol	Condition	Sample No.	Penetration (%)		Assessment
			Average in 30s after 3 min	Max. during exposure	
Sodium chloride test	A.R.	11#	0.9	/	Pass
		12#	0.9	/	
		13#	0.9	/	
	S.W.	17#	0.9	/	
		18#	0.9	/	
		19#	0.9	/	
	M.S. + T.C.	23#	/	1.3	
		24#	/	1.2	
		25#	/	1.1	
Paraffin oil test	A.R.	14#	0.6	/	
		15#	0.8	/	
		16#	0.7	/	
	S.W.	20#	0.6	/	
		21#	1.0	/	
		22#	0.5	/	
	M.S. + T.C.	26#	/	5.2	
		27#	/	5.2	
		28#	/	5.3	
Flow conditioning: 95.0 L/min					

## Clause 7.12 Carbon Dioxide Content of The Inhalation Air

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

Test Requirement	Results	Comment
The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume)	Detail refer to Appendix 3	Pass



### Appendix 3: Summarization of Test Data

Carbon Dioxide Content of The Inhalation Air

Condition	Sample No.	Result		Assessment
A.R.	29#	0.31%	Mean value 0.29%	Pass
	30#	0.28%		
	31#	0.27%		

### Clause 7.16 Breathing Resistance

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

Test Requirement				Results	Comment
The breathing resistances apply to valved and valveless filtering half masks and shall meet the requirements as the following table.				Detail refer to Appendix 4	Pass
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		

### Appendix 4: Summarization of Test Data

Specimen	Condition	Inhalation(mbar)		Exhalation resistance(mbar)				
		At 30 L/min	At 95 L/min	At 160 L/min				
				A	B	C	D	E
32#	A.R.	0.4	1.4	1.5	1.5	1.5	1.5	1.5
33#		0.4	1.4	1.5	1.5	1.5	1.5	1.5
34#		0.4	1.4	1.6	1.5	1.5	1.5	1.5
35#	S.W.	0.4	1.4	1.6	1.6	1.6	1.6	1.6
36#		0.4	1.4	1.6	1.6	1.6	1.6	1.6
37#		0.4	1.4	1.6	1.6	1.6	1.6	1.6
38#	T.C.	0.4	1.4	1.6	1.6	1.6	1.6	1.6
39#		0.4	1.4	1.5	1.6	1.5	1.5	1.5
40#		0.4	1.4	1.5	1.5	1.5	1.5	1.5
41#	T.C.+F.C.	0.4	1.3	1.5	1.5	1.5	1.5	1.5
42#		0.4	1.3	1.5	1.5	1.5	1.5	1.5
43#	F.C.	0.4	1.3	1.7	1.6	1.6	1.7	1.7

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



**Sample photo(s):**



Fig.1



Fig.2





Fig.3



Fig.4

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

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