





中国认可 国际互认 检测 TESTING CNAS L0599

Test Report SL52025269633301TX Date: June 18,2020 Page 1 of 10

AN HUI JINRUI AUTO PARTS CO.,LTD NO1.QIAOWAN ROAD FEIXI TOWN, ANHUI PROVINCE, CHINA.

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

Sample Description : (A)Particle Filtering Half Mask

Claimed : FFP2

Composition : (A)Woven-fabric, Melt-blown fabric

Sample Color : (A)WHITE

Manufacturer : AN HUI JINRUI AUTO PARTS CO.,LTD
Supplier : AN HUI JINRUI AUTO PARTS CO.,LTD

Test Performed : Selected test(s) as requested by applicant

Sample Receiving Date : Jun 04, 2020

Testing Period : Jun 04, 2020 - Jun 18, 2020

Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the

sample(s) tested, for further details, please refer to the following page(s).

Conclusion:

Sample No.	Recommendation Level	
(A)	FFP2NR	

Signed for and on behalf of

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center

Sara Guo (Account Executive)



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Test Result

Respiratory Protective Devices — Filtering Half Masks to Protect against Particles — Requirements, Testing, Marking

Date: June 18,2020

(EN 149:2001+A1:2009)

Clause 7.4 Packaging

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

Test Requirement	Results	Comment
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)

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	
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.	Comply	Pass
When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.	Comply	2000
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	

Clause 7.6 Cleaning and Disinfecting

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

Test Requirement	Results	Comment
f 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 iltering 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)

Test Requirement	Results	Comment
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.		Pass



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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
The total inward leakage consists of three components: face seal leakage, exhalation value leakage(if exhalation value fitted) and filter penetration. 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	Detail refer to Appendix 1	Pass

Appendix 1: Summarization of Test Data

Inward Leakage Test Data

Subject	Sample No.	Condition	Walk(%)	Head Side/side(%)	Head up/down(%)	Talk(%)	Walk(%)	Mean(%)
Zhou	1	A.R.	10.08	9.66	10.25	9.88	10.22	10.02
Luo	2	A.R.	10.54	10.68	10.27	10.58	10.47	10.11
Lu	3	A.R.	10.19	10.25	10.46	9.09	9.71	10.14
Wang	4	A.R.	10.30	8.74	10.00	8.94	9.70	9.54
Bao	5	A.R.	10.06	10.78	10.76	10.90	10.87	10.31
Ding	6	T.C.	9.44	9.05	9.20	9.58	9.57	9.37
Li	7	T.C.	10.00	10.44	10.32	10.90	10.77	10.49
Chen	8	T.C.	10.66	8.44	9.36	9.43	10.16	9.61
Song	9	T.C.	10.77	9.15	10.12	10.50	9.20	10.35
Ye	10	T.C.	10.20	9.42	9.72	10.11	10.15	10.52

Facial Dimension(mm)

Subject	Face length	Face Width	Face Depth	Mouth Width
Chen	125	150	120	58
Lu	115	132	107	48
Zhou	115	135	106	52
Li	125	130	107	46
Luo	125	136	100	43
Zheng	128	140	112	55
Wang	120	147	103	48
Song	120	140	100	50
Bao	130	134	104	50
Ding	134	150	110	52



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Liu	120	135	117	50
Ye	126	137	105	52

Clause 7.9.2 Penetration of Filter Material

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

	Test Requirement	Results	Comment	
	of the filter of the particle filte the following table.	ering half mask shall meet the		
Classifica	Maximum penetrati	on of test aerosol		
tion	Sodium chloride test 95 l/min %	Paraffin oil test 95 l/min %	Detail refer to Appendix 2	Pass
	max.	max.	Andrew State Control Control	
FFP1	20	20		
FFP2	6	6		
FFP3	1	1		

Appendix 2: Summarization of Test Data

Penetration of filter material

Aerosol	Condition	Sample No.	Penetration (%)
	V 10 10 10 10 10 10 10 10 10 10 10 10 10	1	0.137
	As received	2	0.142
		3	0.135
	V-000 MARIE 104 MR 107 MR 107	4	0.147
Sodium chloride test	Simulated wearing treatment	5	0.136
	1527	6	0.125
	Mechanical strength +Temperature conditioned	7	0.346
		8	0.412
	conditioned	9	0.399
		10	0.146
	As received	11	0.155
		12	0.139
STREET DIRECT PERSONS ON	Mark Addition to the state of the	13	0.145
Paraffin oil test	Simulated wearing treatment	14	0.137
	\$75.0	15	0.143
	Machanical atraneth - Tamparatura	16	0.769
	Mechanical strength +Temperature conditioned	17	0.875
	Conditioned	18	0.811



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Clause 7.10 Compatibility with Skin

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

Test Requirement	Results	Comment
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)

Test Requirement	Results	Comment
The material used shall not present a danger for the wearer and shall not be of highly flammable nature	Detail refer to	Door
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.	Appendix 3	Pass

Appendix 3: Summarization of Test Data

Flammability

Condition	Sample No.	Result	
A	1	NIL	
As received	2	NIL	
T	3	NIL	
Temperature conditioned	4	NIL	

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 4	Pass

Appendix 4: Summarization of Test Data

Carbon Dioxide Content of The Inhalation Air

Condition	Sample No.	Re	esult(%)
	1	0.4673	
As received	2	0.4665	Mean value:0.47
	3	0.4667	0.000,000,000,000,000



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Clause 7.13 Head Harness

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

Test Requirement	Results	Comment
The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.	Comply	
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)

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

Clause 7.15 Exhalation Valve(s)

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

Test Requirement	Results	Comment
(a) A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.	Not applicable due to No exhalation valve	
(b) 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.	be shrouded or may Not applicable	
(c) 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.	Not applicable due to No exhalation valve	
(d) When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10N applied for 10 s.	Not applicable due to No exhalation valve	



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Clause 7.16 Breathing Resistance

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

	Test	Results	Comment		
he penetration of the penetratio		he particle filtering ble.	е		
Classification	Maximu	m permitted resist	tance (mbar)	D.1.7.4	Pass
	Inha	alation	Exhalation	Detail refer to	
	30 l/min	95 l/min	160 l/min	Appendix 5	0.0000000
FFP1	0.6	2.1	3.0		
FFP2	0.7	2.4	3.0		
FFP3	1.0	3.0	3.0		

Appendix 5: Summarization of Test Data

Breathing resistance (mbar)

	F1				1			16		2			3				
As received	Flow rate(I/min	/min)	Α	В	С	D	E	Α	В	С	D	Е	Α	В	С	D	E
	Inhalation	30	0.3	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4
	IIIIIaiaiioii	95	1.1	1.0	1.1	1.2	1.0	1.1	1.0	1.2	1.1	1.2	1.0	1.2	1.1	1.0	1.1
	Exhalation	160	1.9	1.9	1.8	2.0	1.8	2.0	1.9	1.8	2.0	1.9	1.8	1.9	2.0	2.0	1.9
	F									6							
Simulated	Flow rate(I/min)	/min)	Α	В	С	D	E	Α	В	С	D	Е	Α	В	С	D	E
wearing	Inhalation	30	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.5	0.4	0.3	0.4	0.3	0.4
treatment	IIIIIaiation	95	1.1	1.2	1.3	1.2	1.3	1.1	1.2	1.1	1.3	1.2	1.2	1.3	1.1	1.2	1.1
	Exhalation	160	1.9	2.0	2.1	1.9	2.1	2.0	2.1	2.0	1.9	1.9	2.1	2.0	2.1	1.9	2.1
	F1000000000000000000000000000000000000	Market No. No.			7	0.1000				8					9		
	Flow rate(/min)	Α	В	C	D	E	Α	В	C	D	Е	Α	В	С	D	E
Temperature conditioned	Inhalation	30	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3
		95	1.0	1.0	1.1	0.9	0.9	1.1	1.0	0.9	1.0	1.1	0.9	1.0	0.9	1.0	1.1
	Exhalation	160	1.9	1.8	1.8	1.9	2.0	1.8	1.9	1.9	1.8	2.0	1.9	1.8	1.8	1.9	2.0

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



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Clause 7.17 Clogging

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

	Test Requirement		Results	Comment
/alved particle fil After clogging the FP1: 4 mbar, Ff The exhalation re low. /alveless particle After clogging the	eathing resistance tering half masks: inhalation resistances shall not FP2: 5 mbar, FFP3: 7 mbar at 95 esistance shall not exceed 3 mb efiltering half masks: inhalation and exhalation resis FP2: 4 mbar, FFP3: 5 mbar at 95	5L/min continuous flow par at 160 L/min continuous tances shall not exceed:	Optional for single shift device only	N.A.
II types (valved	netration of filter material and valveless) of particle filte g requirement shall also meet th	e requirements.		
	Maximum penetration Sodium chloride test 95 l/min		Optional for single	
n		%	shift device only	N.A.
	%		20000000000000000000000000000000000000	
====	max.	max.		
FFP1	20	20		
FFP2	6	6		
FFP3	3.40			

Clause 7.18 Demountable Parts

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

Test Requirement	Results	Comment
All demountable parts (if fitted) shall be readily connected and secured, where possible by hand	No demountable parts	N.A.



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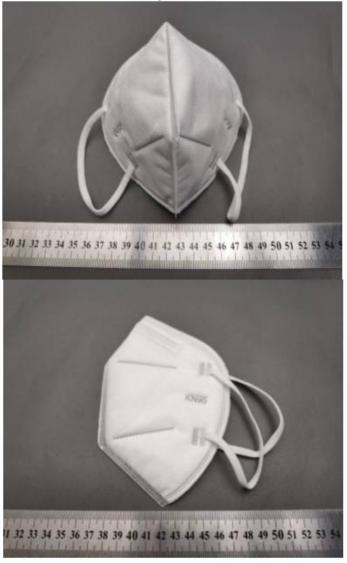
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Sample Photo





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End of Report

