









Test Report

Report No.: [2020] WSZ FHL NO.8622

Product Name	Nano technology reusable mask

Applicant Wenan Ybuyoo Technology Co., Ltd.

Manufacturer Henan Ybuyoo Technology Co., Ltd.

Test Type ____ Entrusted inspection

Jiangsu Guojian Testing Technology Co., Ltd. 3/F., Unit D., Xingye Building, Taihu International Tech-Park, Wuxi, Jiangsu, China 操集事業

Test Report

7	1 CSt I	schort (J
	Nano technology reusable	Model name	A1865
Product name	mask	Brand	YBUY00
Laboratory/ Add.	Jiangsu Guojian Testing Techr 3/F., Unit D, Xingye Building	The state of the s	n-Park, Wuxi, Jiangsu, China
Applicant/ Add/Tel	Henan Ybuyoo Technology (County, Zhoukou City, Henan	and a resident and the state of the property of the	ction of Huaxing Avenue, Xihu 45568
Manufacturer/ Add/Tel	Henan Ybuyoo Technology County, Zhoukou City, Henan		ction of Huaxing Avenue, Xihu 45568
Sample classification	FFP2 R D	Sample number	GW8622-2020
Sample quantity	120 pcs	Date of receipt of sample	13/11/2020
Test type	Entrusted inspection	Article/Batch/Style number	70
Date (s) of performance of tests	13/11/2020~01/12/2020	Testing location	Same as the Laboratory
Sample state	Meeting the requirements of testing	Sample description	Refer to page 3
Test standard(s)	EN 149:2001+A1:2009 Respi against particles - Requiremen	장마스 현대리를 맞는다고 보다 되었다면 사는 그렇게 하고 있다.	s - Filtering half masks to protect
Test items	carbon dioxide content of the filter material, breathing resist	inhalation air, head harne tance, total inward leakag	tibility with skin, flammability, ess, field of vision, penetration of ee, clogging—Breathing e parts, cleaning and disinfecting
Test conclusion	The samples upon testing con the standard EN 149:2001+A	7.75	THE THE STATE OF T
Note	samples.		entioned in the name of customs submitted sample as received.

Approver (name, signature)

Wan Heng + PA Reviewer (name, signature) Yang Ying Taylor Chief Tester (name, signature)

Sample description:	Gray
Test item particulars:	0 0
Type of use	: 🖂 re-useable particle filtering half mask
	single shift only particle filtering half mask
Classes of devices	: FFP1 × FFP2 FFP3
Exhalation valve(s)	: Yes 🖂 No
Inhalation valve(s)	: 🖂 Yes 🛛 No
Designed to protect against both solid &liqui	d aerosols.: 🛛 Yes 🔲 No
Possible test case verdicts:	
- Test case does not be required to the test ob	ject: NRq (Not required)
- Test case does not apply to the test object	: N/A (Not Applicable)
- Test object does meet the requirement	: P (Pass)
- Test object does not meet the requirement	: F (Fail)
General remarks:	
The test results presented in this report relate	only to the submitted sample as received.
This report shall not be reproduced, except assurance that parts of a report are not taken	in full, without the written approval of the issuing Laboratory can provide out of context.
Determination of the test results includes methods.	consideration of measurement uncertainty from the test equipment and
Throughout this report a _ comma / N	point is used as the decimal separator.
Environmental condition of the testing in	this report:
1) Unless otherwise specified, the ambient ten	nperature for testing shall be 25 °C;
2) T.C. Temperature conditioned:	
a) for 24 h to a dry atmosphere of 70 °C;	b) for 24 h to a temperature of -30 °C;
and return to room temperature 25 °C for 4 h l	between exposures and prior to subsequent testing.
	the a mask in a wash basin, hold for 30s with gentle action by hand at flat dry in the sun, cleaning cycles: 20 Times

S.No. (Cl.No.)	Test	item	Unit	Technical requirements	Test result	Single item decision
1 (7.3)	Visual inspection	Marking/ information	-112	Marking and the information supplied by the manufacturer, requirements refer to Cl.9 and Cl.10	The clause were not required	NRq
2 (7.4)	Packaging	Visual inspection		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.	The clause were not required	NRq
4	3100	1	100	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.	Materials were suitable withstand handling and wear.	
3	Material		9	After undergoing S.W., none of the particle filtering half masks shall	Sample 1: neither facepiece nor straps have mechanical failure Sample 2: neither facepiece nor	
(7.5)		terial Visual inspection		have suffered mechanical failure of the facepiece or straps.	Sample 3: neither facepiece nor straps have mechanical failure	Pass
/	<	Y	=	After undergoing S.W. and T.C., none of the particle filtering half masks shall not collapse.	Sample 4: no collapse Sample 5: no collapse Sample 6: no collapse	30
9) _		<	Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Not constitute a hazard or nuisance for the wearer	Y
		Head		Head harness should be comfort.	Sample 1: has the feeling of comfortable wearing	
À	7	harness	>	riead namess should be comfort.	Sample 2: has the feeling of comfortable wearing	
4 (7.7)	Practical performance	Security of fastenings	7	Fastenings are safe and reliable	Sample 1: All fastenings are firm	Pass
	18	rustellings			Sample 2: All fastenings are firm Sample 1: Having a wider visual field	9
	Fie			Field of vision is acceptable	Sample 2: Having a wider visual field	4

S. No. (Cl. No.)	Test	tem	Unit	Technical requirements	Tes	t resu	lt		Single item decision
5 (7.8)	Finish of parts .			Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	Parts of the d sharp edges a			12	Pass
			~	TEN	A.R. ¹⁾	0.8%	0.8%	0.7%	4
	0	Sodium chloride		≤ <u>6%</u>	S.W. ¹⁾	0.8%	0.8%	0.8%	Pass
	100	16	2		M.S+ T.C.+C.D. ²⁾	1.0%	1.1%	0.9%	
4	>	3	3		A.R. ¹⁾	1.9%	1.8%	1.9%	
6 (7.9.2)	Penetration of	ation of Paraffin oil -	-	<u>≤6%</u>	S.W. ¹⁾	1.9%	1.9%	1.8%	Pass
		7	S	TEL T	M.S+ T.C.+C.D. ²⁾	5.1%	5.0%	5,2%	737
2 m		2) max. pene Note: The penetra Maximum p	tration tion o enetra	tion over a time of 30s, beginning 3 m during exposure test reported; If the filter of the particle filtering half tion of sodium chloride aerosol test 95 L tion of paraffin oil aerosol test 95 L/min	mask shall me /min max. FFP	et the re	equirem FFP2: (ents be	P3: 1%
7	Tan Tan		T.	Materials that may come into contact with the wearer's skin shall	A.R.	F-23,110.00	ıll don't		3
(7.10)	Compatibility w	with skin	5	not be known to be likely to cause irritation or any other adverse effect to health.	T.C.	5 pcs a	ill don't	cause	Pass

S.No. (CLNo.)	Test item	Unit	Technical requirements	Te	est result	Single item decision
8 (7.11)	Flammability		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.	A.R.	The Sample is burning. Burning time:0.5s The Sample is burning. Burning time:0.4s The Sample is burning.	Pass
4 30	Z	4	T.C.	Burning time:0.4s The Sample is burning. Burning time:0.4s		
	ED (8	The carbon dioxide content of the inhalation air (dead space) shall	Sample	1 0.6312%	///
9 Carbon dioxide content of the inhalation air	3	not exceed an average of 1.0 % (by volume).	Sample Sample		Pass	
	700		Remark: 3 half masks (S1, S2 and S3) A.R. tested.	average	0.63%	
7		4	The head harness shall be designed so that the particle filtering half mask can be donned and removed easily. The head harness shall be	A.R.	All of 5 pieces particle filtering half mask meet the requirements	760
10 (7.13) Head harness		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.	T.C.	All of 5 pieces particle filtering half mask meet the requirements	Pass	
11 (7.14)	Field of vision	TOO	The field of vision is acceptable if determined so in practical performance tests.	The two sar wider visua	nples both have a	Pass

S.No. (Cl.No.)	Test	item	Unit	Technical requirements	Test result	Single item decision
	4	>	=	A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.	No exhalation valve(s)	5
12 (7.15)	Exhalation valve(s)	Visual	shall be protected against		No exhalation valve(s)	N/A
4) () () () () () () () () () (Flow conditioning	95	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.	No exhalation valve(s)	
2		Strength of attachment of exhalation valve housing	7	When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s.	No exhalation valve(s)	18,
13 (7.17)	Breathing resistance &		<	Optional for single shift use devices, mandatory for re-usable devices. Tested by Cl. 7.17.1/2/3.	 ☒ Tests results refer to Table C&D, or ☐ Tests not requested for single shift use face mask 	Pass
14 (7.18)	Demour	ntable parts	_	All demountable parts (if fitted) shall be readily connected and secured, where possible by hand.	All demountable parts are readily connected and secured.	S Pass

Table A- Leakage—Total Inward Leakage

S.No. (CLNo.)	Test item	Unit	Technical requirements ¹⁾			Tes	t result	7		.5	Single item decision					
		7	240	Exercises	E1 (%)	E2 (%)	E3 (%)	E4 (%)	E5 (%)	TIL (%)	-					
V)			At least 46 out of the 50		2.4	4.1	8.3	9.6	3.5	5.6						
20		O	individual exercise results shall be not greater than 11%; And in addition, at least		4.6	6.9	7.3	8.5	5.2	6.5	1					
	Leakage greater than 1						1000		A.R.	2.4	2.7	2.7	3.7	2.6	2.8	1
15		10		77	5.0	6.5	7.8	9.1	5.2	6.7						
(7.9.1)	Total inward	-			3.5	4.8	6.1	7.3	4.3	5.2	Pass					
	leakage	1					\vee	5.1	5.7	6.8	8.3	5.6	6.3			
	5		total inward leakage		4.1	4.8	6.0	7.7	4.3	5.4	1271					
	4		shall be not greater than 8%.	T.C.	3.6	5.2	6.8	7.9	4.1	5.5	1/1					
		700	(2)	4.0	4.9	6.1	6.8	4.3	5.2							
		00	22	5		2	110	3.6	5.1	5.8	6.7	4.2	5.1			

Note 1:

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

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.

Table A-1- Test subjects-Facial dimension

Test Subject No.	Length of face (mm)	Width of face (mm)	Depth of face (mm)	Width of mouth (mm)
1	120	130	109	59
2	122	140	115	65
3	119	160	139	55
4	112	122	119	63
5	110	130	118	60
6	115	119	110	59
7	112	123	113	55
8	103	130	100	50
9	118	139	130	63
10	120	135	125	50

Table B- Breathing Resistance

		70		1 TO 1			Test	result			9								
S.Na (CLNa.)	Test	item	Unit	Technical requirements ¹⁾	Exercises	Facing directly ahead	Facing vertically upwards	Facing vertically downwards	Lying on the left side	Lying on the right side	Single iten decision								
$\mathcal{O}($		10	11/	185		0.4	0.4	0.4	0.3	0.4									
1	100	- 22	1		A.R.	0.4	0.3	0.4	0.4	0.4									
	100		4	>		0.4	0.4	0.4	0.4	0.3									
	- 68		1		.03	0.4	0.3	0.4	0.4	0.4									
	1886	Inhalation 30 L/min		≤ <u>0.7</u>	S.W.	0.4	0.4	0.5	0.4	0.4	Pass								
1	2	30 Dillill		/		0.4	0.4	0.4	0.4	0.4									
	3		1		7	0.4	0.4	0.5	0,4	0.4	9.								
	7	27	/		T.C.	0.4	0.4	0.4	0.4	0.4	A 1								
E -		1			0.4	0.4	0.4	0.4	0.5										
		100	7/1	A.R.	1.2	1.2	1.3	1.2	1.2										
		70	V = V		1.3	1.2	1.3	1.3	1.3										
			2		100	1.4	1.3	1.4	1.3	1.3									
	n	2	halation 5 L/min mbar	nbar ≤ <u>2.4</u>	722.	1.3	1.2	1.3	1.3	1.3	E								
16 7.16)	Breathing resistance	A CONTRACTOR			≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	≤ <u>2.4</u>	S.W.	1.3	1.3	1.4	1.3	1.3	Pass
	resistance	33 Estima			~	1.3	1.2	1.3	1.3	1.3	350								
					1	1.3	1.2	1.3	1,3	1.3									
	. \				T.C.	1.3	1.3	1.4	1.3	1.3									
-01	9 1					1.3	1.2	1.3	1.3	1.3									
1		-311	650	V	1	2.6	2.5	2.6	2.5	2.5									
		1350			A.R.	2.4	2.5	2.5	2.4	2.4	0								
		13				2.4	2.4	2.4	2.4	2.4									
	100	F. (2)				2.4	2.3	2.4	2.4	2.4									
_ ^	TO S	Exhalation		≤ <u>3.0</u>	S.W.	2.4	2.3	2.4	2.4	2.4	Pass								
		200 Earnin	160 L/min			2.4	2.5	2.5	2.4	2.5	5								
	18			N. A		2.5	2.4	2.5	2.5	2.5	100								
			11/	0	T.C.	2.5	2.5	2.5	2.4	2.4	1								
1				0	40	2.4	2.4	2.5	2.4	2.4									

Note 1: Limitation may need be changed according to classification, refer to Table 2 — Breathing resistance of EN 149:2001 +A1:2009 for the Technical requirements.

Table C- Clogging Test-Breathing resistance

		70		Technical			Test	result			1
S.No. (Cl.No.) Test	item ^{1) 2)}	Unit	requirements ^{(1) (2)}	Exercises	Facing directly ahead	Facing vertically upwards	Facing vertically downwards	Lying on the left side	Lying on the right side	Single item decision	
Clogging			1000	To	A.R.	3.8	3.9	3.8	3.8	3.8	
	Inhalation 95 L/min	mbar	≤4	т.с.	3.9	3.8	3.9	3.9	3.8	Pass	
17	test-			y	T.C.	3.8	3.9	3.8	3.8	3.8	21
(7.17)				A.R.	2.9	2.8	2.9	2.9	2.8	4	
resistance	ce Exhalation 95 L/min	lmbar	≤4	TO	2.8	2.8	2.8	2.9	2.8	Pass	
	1000	0		7 / 5	T.C.	2.8	2.9	2.8	2.9	2.8	

Note 1: Valved particle filtering half masks

After clogging the inhalation resistances shall not exceed FFP1: 4 mbar FFP2: 5 mbar FFP3: 7 mbar at 95 l/min continuous flow;

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

Note 2: 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 95 l/min continuous flow.

Table D- Clogging Test—Penetration of filter material

S. No. (Cl. No.)	Test	item	Unit	Technical requirements	Те	st result	Single item decision
1	~	1000	5	1 / /	A.R.	0.9%	
Clogging test- Penetration of filter material	Sodium chloride	-	≤ <u>6%</u>	T.C.	1.0%	Pass	
			(0)	1.0.	0.8%		
		1/1	12/	A.R.	4.9%		
		Paraffin oil	100	≤ <u>6%</u>	T.C.	5.0%	Pass
		1		1.0.	4.7%		

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Table E- Cleaning and disinfecting

S. No. (Cl. No.)	Test	item	Unit	Technical requirements	Test result						Single item decision	
19 (7.6)	Cleaning and disinfecting	Practical performance (8.4)		Particle filtering half mask designed to be re-usable, the materials used	Head harness comfort 5 pcs all have the feeling of comfortable wearing							
			3		Security of fastenings			5 pcs all are firm				
			shall withstand the cleaning and disinfecting agents and procedures to be specified by the	Field of vision			5 pcs all Have a wider visual field				Pass	
		Total inward leakage (8.5)		Exercises	E1 (%)	E2 (%)	E3 (%)	E4 (%)	E5 (%)	TIL (%)		
			19	manufacturer.	C.D.	4.6	5.9	7.3	8.9	5.1	6.4	
			0	Testing shall be done in accordance with 8.4 and 8.5.		5.7	7.1	8.3	9.0	6.1	7.2	
						4.3	5.7	6.8	8.6	5.1	6.1	
						3.4	4.8	6.0	8.0	3.5	5.1	
					577	2.6	5.1	4.9	6.1	4.2	4.6	100

Abbreviations:		7 ///2
A.R. As received	M.S. Mechanical strength	S.W. Simulated wearing treatment
T.C. Temperature conditioned	F.C. Flow conditioned	C.D. Cleaning and Disinfecting

Annex A- Estimates of the uncertainty of measurement

Test item	Uncertainty			
Total inward leakage	2.98%			
Penetration of filter material	1.00%			
Flammability	1.00%			
Carbon dioxide content of the inhalation air	0.93%			
Breathing resistance	1.90%			

Annex B- Sample Photo











The end





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