



Report No.: TST200105087ER

Date :2020-03-13

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# Test Report

(EN 149:2001+A1:2009 FFP2)

**Client Name:** Guangzhou Sunjoy Auto Supplies Co., Ltd.

**Name of product:** SELF SUCTION FILTER RESPIRATOR KN95

**Model:** Headband folding type (K1-K100),  
Ear hook folding type (K1-K100)

**Brand name:** SUNJOY

**Manufacturer:** Guangzhou Sunjoy Auto Supplies Co., Ltd.

**Shenzhen TST Technology Co., Ltd.**

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**Client** : Guangzhou Sunjoy Auto Supplies Co., Ltd.  
**Address** : Xixian Industrial Zone, Kengtou, Nancun Town, Panyu District, Guangzhou, Guangdong, China

**Testing Company** : Shenzhen TST Technology Co., Ltd.  
**Address** : 3F, B Block, Huachuangda Centre Business Building, Xinghua 1th Road, Baoan Distirct 42, Shenzhen City, China

## Description of the submitted sample(s):

Sample Name : SELF SUCTION FILTER RESPIRATOR KN95  
Brand Name : SUNJOY  
Model Name : Headband folding type (K1-K100), Ear hook folding type (K1-K100)  
Test Model Name : Headband folding type (K1)  
Classification : FFP2 NR D  
Manufacturer : Guangzhou Sunjoy Auto Supplies Co., Ltd.  
Address: Xixian Industrial Zone, Kengtou, Nancun Town, Panyu District, Guangzhou, Guangdong, China

Sample Received Date : 2020-01-06  
Sample tested Date : 2020-01-08 to 2020-03-13  
Ambient temperature and humidity : (23-25) °C, (51-75) %RH  
Test Requested : EN 149:2001+A1:2009 FFP2  
Conclusion : According to the kind and extend of test(s) performed the test item passed test specification.

Remark: The tested sample(s) and the sample information are provided by the client.

Compiled by:

Lee Li

Lee Li

Approved by:

Jackson Huang

Lab Supervisor

Date :2020-03-13

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## Test Result:

Cause	Testing Item	Assessment
		K1
7.4	<p>Packaging:</p> <ul style="list-style-type: none"><li>-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.</li><li>-The visual inspection is carried out where appropriate by the test house prior to laboratory or practical performance tests.</li></ul>	Pass
7.5	<p>Material:</p> <ul style="list-style-type: none"><li>-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.</li><li>-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.</li><li>-Three particle filtering half masks shall be tested.</li><li>-When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.</li><li>-Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.</li></ul> <p>Testing shall be done in accordance with 8.2.</p>	Pass
7.6	<p>Cleaning and disinfecting:</p> <ul style="list-style-type: none"><li>-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.</li></ul> <p>Testing shall be done in accordance with 8.4 and 8.5.</p> <ul style="list-style-type: none"><li>-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.</li></ul> <p>Testing shall be done in accordance with 8.11.</p>	Pass
7.7	Practical performance	Pass
7.8	<p>Finish of parts:</p> <p>None of the specimens used in laboratory testing showed evidence of sharp edges or burrs.</p>	Pass

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Cause	Testing Item	Assessment
		K1
7.9.1	Total inward leakage	Pass
	All 50 individual exercise results were not greater than 25%. All 10 individual wearer arithmetic means were not greater than 22%.	See the table 7.9.1
7.9.2	Penetration of filter material: Sodium chloride	Pass
	Sodium chloride	See the table 7.9.2
	Paraffin oil	See the table 7.9.2
7.10	Compatibility with skin: -No problems were encountered during practical performance testing. -No problems were encountered during total inward leakage testing. -The likelihood of materials in contact with the skin causing irritation or other adverse effect on health was not assessed.	Pass
7.11	Flammability	Pass
7.12	Carbon dioxide content of the inhalation air	Pass(See the table 7.12)
7.13	Head harness: -The head harness was designed to allow the particle filtering half-mask to be donned and removed easily during practical performance and total inward leakage testing. -The head harness was adjustable and there were no adverse comments regarding security following practical performance and total inward leakage testing. -The product satisfied the total inward leakage requirements. See 7.9.1 for results.	Pass
7.14	Field of vision	Pass
	There were no adverse comments following practical performance tests.	Pass
7.15	Exhalation valve(s)	N/A
7.16	Breathing resistance	Pass(See the table 7.16)
7.17	Clogging	Pass
7.18	Demountable parts	N/A
9	Marking	Pass(FFP2 NR D)
10	Information to be supplied by the manufacturer	Pass

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**Table 7.9.1:**

Subj.	Specimen	Cond.	Walk	Head side/ side	Head up/ down	Talk	Walk	Mean
	Mask							
VE	401	A.R.	2.21	1.75	1.85	1.81	2.01	1.93
PBU	402	A.R.	0.70	0.45	0.48	0.43	0.41	0.49
ED	403	T.C.	3.36	3.59	3.54	2.87	2.99	3.27
AH	404	T.C.	8.18	7.82	8.57	4.93	6.67	8.24
JLS	405	T.C.	1.19	2.63	1.48	3.55	1.86	2.14
Maximum permitted			9					

**Subject facial dimensions:**

Subject	Face Length (mm)	Face Width (mm)	Face Depth (mm)	Mouth Width (mm)
VE	116	132	115	45
PBU	116	141	90	52
ED	114	138	100	47
AH	119	113	115	50
JLS	122	151	120	51

**Table 7.9.2:**
**Sodium chloride:**

Specimen	Condition	Penetration (%)	
		After 3 minutes	Max. during exposure
111	A.R.	3.41	
112		1.34	
113		2.06	
120	S.W.	1.53	
121		3.29	
122		2.77	
126	M.S. + T.C.	3.43	3.43
127		3.89	3.89
128		2.59	2.59
Maximum permitted		6	

**Paraffin oil:**

Specimen	Condition	Penetration (%)	
		After 3 minutes	Max. during exposure
114	A.R.	4.66	
115		5.79	
116		5.74	
123	S.W.	5.15	
124		5.05	
125		5.89	
129	M.S. + T.C.	3.89	4.88
130		4.35	5.17
131		4.41	4.96
Maximum permitted		6	

**Table 7.12:**

Specimen	CO2 (%)
235	0.65
236	0.54
237	0.48
Maximum permitted	1.0

**Table 7.16:**

Specimen	Condition	Inhalation resistance (mbar)		Exhalation resistance (mbar)
		At 30 l/min	At 95 l/min	At 160 l/min
111	A.R.	0.56	1.62	1.96
112		0.61	2.03	2.24
113		0.57	1.80	2.19
117	T.C.	0.53	1.85	2.02
118		0.61	1.68	2.03
119		0.62	2.07	2.20
120	S.W.	0.57	1.88	2.14
121		0.59	1.95	2.20
122		0.57	1.63	1.87
138	A.R. + F.C.	0.56	1.89	2.27
139	T.C. + F.C.	0.61	1.77	2.20
140		0.63	1.78	2.23
Maximum permitted		0.7	2.4	3.0

**Note:** All models are the same, except model name and wear mode. Full tests are performed on model K1.

Photos of the sample:



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

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