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中国认可  
国际互认  
检测  
TESTING  
CNAS L1499

# Test Report

Test Report No.: No.2020(H)-0840T (EN)

PRODUCT: KN95 Protective mask

APPLICANT: Beconnected Shanghai Ltd

TEST TYPE: Applicant Test

THE NATIONAL QUALITY SUPERVISION  
AND TEST CENTER FOR PERSONAL  
PROTECTION EQUIPMENT (BEIJING)

(北京)




**The National Quality Supervision and Test Center for  
Personal Protection Equipment(Beijing)  
Test Report**

5.1.2h

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Product	KN95 Protective mask	Brand	UFA
Model	KN95 EARLOOP	Grade	-----
Applicant	Beconnected Shanghai Ltd	Applicant Tel.	5.1.2e
Applicant Add.	Rm 24B/C/E/, No.1118, block A, Changshou Road, Shanghai, China		
Manufacturer	Dongguan Anzhong Medical equipment Technology Co., Ltd	Manufacturer Tel.	-----
Manufacturer Add.	Room 301, building 2, No.6 Jisanheng Road, Dongcheng street, Dongguan City, Cuangzhou Province, China		
Sample Quantity	40	Manufactured Date	2020.04.20
Sample Condition	Intact	Date Received	2020.07.02
Sample Characteristic	White folding mask	Sample Deliverer	-----
According to	GB 2626-2006 Respiratory protective equipment – Non-powered air-purifying particle respirator		
Test items	General, Visual inspection, Filter efficiency, Inhalation resistance, Exhalation resistance, Dead space, Field of vision, Head harness, Flammability, Total inward leakage for disposable facepiece		
Conclusion	<p>The samples were tested in accordance with GB 2626-2006 Respiratory protective equipment - Non-powered airpurifying particle respirator , and data are listed in the test result summary.</p> <p style="text-align: right;">(Test report seal)</p> <p style="text-align: right;">Date : 2020.7.21</p> 		
Note	Type No.: UFA2020-5D    Batch No. :1277		
Approved by	5.1.2e	Verified by:	5.1.2e
		Inspected by:	5.1.2e

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No.	Test Item	Standard Clause	Requirement	Test Result	Conclusion	Note
1	General	5.1	Material which may come in contact with the skin and filter material should be harmless for the wearer; Material should have enough strength, and should have no damage or deformation in the nominal shelf life.	Satisfy the requirement	Pass	---
			All respirators should be less likely to produce mechanical defect; the design, composition and installation of respirators should not be a potential hazard or cause discomfort to the wearer.	All respirators are less likely to produce mechanical defect; the design, composition and installation of respirators are not a potential hazard or cause discomfort to the wearer.		
			The head harness shall be adjustable, and shall be designed so that the respirator can be donned and removed easily. The head harness shall be sufficiently robust to hold the respirator firmly in the face of wearer; in process of which the head harness should not cause obvious compression or tenderness to the wearer.	The head harnesses are adjustable, and are designed so that the respirator can be donned and removed easily. The head harnesses are sufficiently robust to hold the respirator firmly in the face of wearer; in process of which the head harnesses don't cause obvious compression or tenderness to the wearer.		
			The structure of disposable facepiece should be capable of maintaining seal with the face of wearer; and should not show deformation in the nominal shelf life.	The structures of disposable facepiece are capable of maintaining seal with the face of wearer.		

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No.	Test Item	Standard Clause	Requirement	Test Result	Conclusion	Note	
2	Visual inspection	5.2	<p>The surface of respirators should not show damage, deformation or other obvious defect; The material and structure should be capable of withstanding normal usage condition and the condition of temperature, humidity and mechanical strength which are likely to be encountered; the head harness shall be adjustable.</p> <p>After conditioned, the respirators shall show no signs of detachment, damage or deformation.</p>	As received	Pass	— —	
				1#			No damage, deformation or other obvious defect; the head harness is adjustable
				2#			No damage, deformation or other obvious defect; the head harness is adjustable
				Temperature and humidity conditioned			
				6#			The respirator shows no signs of detachment, damage or deformation.
7#	The respirator shows no signs of detachment, damage or deformation.						

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No.	Test Item	Standard Clause	Requirement	Test Result			Conclusion	Note	
				Sample number	Initial filter efficiency ( $\eta$ )	Loading filter efficiency ( $\eta$ )			
3	Filter efficiency	5.3	KN90 $\geq$ 90.0% KN95 $\geq$ 95.0% KN100 $\geq$ 99.97%  Flow conditioning: Single filter: (85 $\pm$ 4) L/min	As received	16#	91.0 %	—	Fail (KN95)	—
					17#	90.9 %	—		
					18#	90.9 %	—		
					19#	90.9 %	—		
					20#	90.8 %	—		
					21#	90.8 %	—		
					22#	90.8 %	—		
					23#	90.8 %	—		
					24#	90.8 %	—		
					25#	90.8 %	—		
				Temperature and humidity conditioned	26#	88.7 %	—		
					27#	88.6 %	—		
					28#	88.5 %	—		
					29#	88.5 %	—		
30#	88.6 %	—							
KN: Ambient temperature: (25 $\pm$ 5) $^{\circ}$ C Relative humidity: (30 $\pm$ 10)%				Ambient temperature: 25 $^{\circ}$ C Relative humidity: 30 %					

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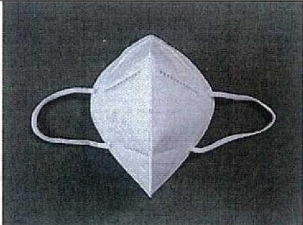
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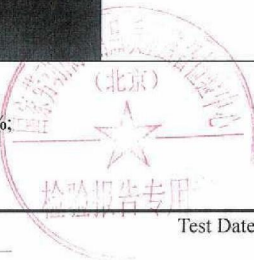
No.	Test Item	Standard Clause	Requirement	Test Result		Conclusion	Note	
4	Inhalation resistance	5.5	$\leq 350\text{Pa}$	As received	3#	182 Pa	Pass	---
					4#	185 Pa		
				Temperature and humidity conditioned	7#	188 Pa		
					8#	188 Pa		
5	Exhalation resistance	5.5	$\leq 250\text{Pa}$	As received	3#	94 Pa	Pass	---
					4#	94 Pa		
				Temperature and humidity conditioned	7#	99 Pa		
					8#	99 Pa		
6	Dead space	5.7	The carbon dioxide content of the inhalation air shall not exceed an average of 1.0 % (by volume) Temperature of the air: (16~32)°C	As received	0.5 %	Pass	---	
				Temperature of the air: 25 °C				
7	Field of vision	5.8	Field of vision	Class of mask Half mask	As received		Pass	---
			Underneath field of vision	$\geq 60^\circ$	4#	65°		
8	Head harness	5.9	Each strap of the head harness shall withstand a pull of 10N applied for 10s in the direction of pulling, and no breaks or sliding of the straps shall occur.	As received		Fail	---	
				1#	Breaks			
				Temperature and humidity conditioned				
9	Flammability	5.13	The respirator shall not burn or not to continue to burn for more than 5 s after removal from the flame.	As received		Pass	---	
				1#	Burn 1s			
				2#	Burn 1s			
				Temperature and humidity conditioned				
				9#	Burn 1s			
				10#	Burn 1s			

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No.	Test Item	Standard Clause	Requirement	Test Result	Conclusion	Note																																																																																																										
9	Total inward leakage for disposable facepiece	5.4.1	<table border="1"> <tr> <td>Classification</td> <td>at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage</td> </tr> <tr> <td>KN90</td> <td>&lt; 10%</td> </tr> <tr> <td>KN95</td> <td>&lt; 8%</td> </tr> <tr> <td>KN100</td> <td>&lt; 2%</td> </tr> </table> <table border="1"> <tr> <td>Classification</td> <td>at least 46 out of the 50 individual exercise results for</td> </tr> <tr> <td>KN90</td> <td>&lt; 13%</td> </tr> <tr> <td>KN95</td> <td>&lt; 11%</td> </tr> <tr> <td>KN100</td> <td>&lt; 5%</td> </tr> </table>	Classification	at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage	KN90	< 10%	KN95	< 8%	KN100	< 2%	Classification	at least 46 out of the 50 individual exercise results for	KN90	< 13%	KN95	< 11%	KN100	< 5%	<table border="1"> <thead> <tr> <th>Sample No.</th> <th>Testers</th> <th>Stand (%)</th> <th>Head Side/ side (%)</th> <th>Head up/down (%)</th> <th>Talk (%)</th> <th>Stand (%)</th> <th>Mean (%)</th> </tr> </thead> <tbody> <tr> <td rowspan="5">As received</td> <td>1#</td> <td>1</td> <td>10.94</td> <td>11.41</td> <td>11.45</td> <td>11.26</td> <td>10.78</td> <td>11.2</td> </tr> <tr> <td>2#</td> <td>2</td> <td>11.57</td> <td>11.84</td> <td>12.43</td> <td>11.98</td> <td>11.35</td> <td>11.8</td> </tr> <tr> <td>3#</td> <td>3</td> <td>11.43</td> <td>11.45</td> <td>12.43</td> <td>11.70</td> <td>11.45</td> <td>11.7</td> </tr> <tr> <td>4#</td> <td>4</td> <td>10.45</td> <td>10.76</td> <td>11.23</td> <td>10.69</td> <td>10.23</td> <td>10.7</td> </tr> <tr> <td>5#</td> <td>5</td> <td>10.52</td> <td>10.79</td> <td>11.43</td> <td>10.85</td> <td>10.21</td> <td>10.8</td> </tr> <tr> <td rowspan="5">Temperature and humidity conditioned</td> <td>6#</td> <td>6</td> <td>9.32</td> <td>9.40</td> <td>10.23</td> <td>9.71</td> <td>9.12</td> <td>9.6</td> </tr> <tr> <td>7#</td> <td>7</td> <td>9.64</td> <td>9.81</td> <td>9.71</td> <td>9.13</td> <td>8.87</td> <td>9.4</td> </tr> <tr> <td>8#</td> <td>8</td> <td>8.43</td> <td>8.72</td> <td>8.92</td> <td>8.95</td> <td>7.92</td> <td>8.6</td> </tr> <tr> <td>9#</td> <td>9</td> <td>9.66</td> <td>9.72</td> <td>10.32</td> <td>10.08</td> <td>9.47</td> <td>9.9</td> </tr> <tr> <td>10#</td> <td>10</td> <td>10.31</td> <td>10.46</td> <td>10.86</td> <td>10.57</td> <td>10.23</td> <td>10.5</td> </tr> </tbody> </table> <p>35 out of 50 individual exercise results were not greater than 11 %                      Out of 10 individual wearer arithmetic means were not greater than 8 %</p>	Sample No.	Testers	Stand (%)	Head Side/ side (%)	Head up/down (%)	Talk (%)	Stand (%)	Mean (%)	As received	1#	1	10.94	11.41	11.45	11.26	10.78	11.2	2#	2	11.57	11.84	12.43	11.98	11.35	11.8	3#	3	11.43	11.45	12.43	11.70	11.45	11.7	4#	4	10.45	10.76	11.23	10.69	10.23	10.7	5#	5	10.52	10.79	11.43	10.85	10.21	10.8	Temperature and humidity conditioned	6#	6	9.32	9.40	10.23	9.71	9.12	9.6	7#	7	9.64	9.81	9.71	9.13	8.87	9.4	8#	8	8.43	8.72	8.92	8.95	7.92	8.6	9#	9	9.66	9.72	10.32	10.08	9.47	9.9	10#	10	10.31	10.46	10.86	10.57	10.23	10.5	Fail (KN95)	
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Note	Temperature and humidity conditioning a) for 24h to a temperature of 38°C and a relative humidity of 85%; b) for 24h to a dry temperature of 70°C; c) for 24h to a temperature of -30°C.																																																																																																															



————— End —————

Test Date: 2020.07.02- 2020.07.13

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