TEST REPORT

Report Number.....	TSGK-2020-0550-T
Applicant's name.....	UNIVERSAL CERTIFICATION and SURVEILLANCE SERVICES Trade Co.
Address.....	Necip Fazıl Bulvarı Keyap Sitesi E2 Blok No:44/84 Yukarı Dudullu Ümraniye/İSTANBUL – TURKEY
Manufacturer name.....	Anhui lekang sanitary materials co.， LTD
Address.....	Caozhen Town Industrial Park， Tongcheng City， Anhui Province，China
Trade mark.....	/
Product name.....	Filtering half mask
Model.....	LK-Z1510
Sample grade.....	FFP2
Sample number.....	160
Sample description.....	/
Receiving date of sample.....	May 7, 2020
Date(s) of tests.....	May 7, 2020 – May 20, 2020
Test conclusion.....	The sample upon testing, the test clauses don't meet the requirements of the EN 149:2001 + A1:2009 standard. The details of test results refer to the following.

Approver:		Reviewer:	Tester:	
	2020.08.15	2020.08.15		2020.08.15

<table>
<tr><th>Serial</th><th>Test item</th><th>Technical requirements</th><th colspan="8">Result - Remark</th><th>Verdict</th></tr>
<tr><td>1</td><td>Visual inspection</td><td>The visual inspection shall include the marking and information supplied by the manufacturer.</td><td colspan="8">Meet requirement</td><td>P</td></tr>
<tr><td>2</td><td>Packaging</td><td>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.</td><td colspan="8">Meet requirement</td><td>P</td></tr>
<tr><td>3</td><td>Material</td><td>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.</td><td colspan="8">Meet requirement</td><td>P</td></tr>
<tr><td>4</td><td>Cleaning and disinfecting</td><td>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.</td><td colspan="8">Not Applicable</td><td>N/A</td></tr>
<tr><td rowspan="3">5</td><td rowspan="3">Practical performance</td><td>Head harness should be comfort</td><td colspan="8">Meet requirement</td><td rowspan="3">P</td></tr>
<tr><td>Fastenings are safe and reliable</td><td colspan="8">Meet requirement</td></tr>
<tr><td>Field of vision is acceptable</td><td colspan="8">Meet requirement</td></tr>
<tr><td>6</td><td>Finish of parts</td><td>Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.</td><td colspan="8">Meet requirement</td><td>P</td></tr>
<tr><td rowspan="12">7</td><td rowspan="12">Total inward leakage</td><td rowspan="12">At least 46 out of the 50 individual exercise results shall be not greater than:
☐ 25 % for FFP1;
☒ 11 % for FFP2;
☐ 5 % for FFP3;
And in addition, a 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.</td><td>Exercises</td><td>E1 (%)</td><td>E2 (%)</td><td>E3 (%)</td><td>E4 (%)</td><td>E5 (%)</td><td>TIL (%)</td><td rowspan="12">Not checked</td></tr>
<tr><td rowspan="5">A.R.</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr>
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<tr><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr>
<tr><td rowspan="5">T.C.</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td><td>/</td></tr>
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<tr><td colspan="2">Subject</td><td>Face Length (mm)</td><td colspan="3">Face Width (mm)</td><td colspan="2">Face Depth (mm)</td><td colspan="2">Mouth Width (mm)</td><td>--</td></tr>
</table>

Serial	Test item	Technical requirements		Result - Remark			Verdict
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8	Penetration of filter material	Sodium chloride: ☐ FFP1: ≤ 20 %; ☒ FFP2: ≤ 6 %; ☐ FFP3: ≤ 1 %.	A.R.	0.1 %	0.2 %	0.4 %	P
			S.W.	0.3 %	0.3 %	1.1 %	
			M.S.+T.C.	0.1 %	0.2 %	2.5 %	
		Paraffin oil: ☐ FFP1: ≤ 20 %; ☒ FFP2: ≤ 6 %; ☐ FFP3: ≤ 1 %.	A.R.	1.4 %	1.2 %	1.8 %	
			S.W.	0.8 %	0.6 %	1.3 %	
			M.S.+T.C.	0.2 %	0.8 %	1.4 %	
9	Compatibility with skin	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.	A.R.	5 pieces all don't cause irritation.			P
			T.C.	5 pieces all don't cause irritation.			
10	Flammability	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	A.R.	Burn for 0s			P
				Burn for 0s			
			T.C.	Burn for 0s			
				Burn for 0s			
11	Carbon dioxide content of the inhalation air	The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume).	0.45 %		Mean value: 0.51 %		P
			0.55 %				
			0.54%				
12	Head harness	The head harness shall be designed so that the particle filtering half mask can be donned and removed easily. The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position.	A.R.	Meet requirement			P
			T.C.	Meet requirement			
13	Field of vision	The field of vision is	Meet requirement				P

Serial	Test item	Technical requirements	Result - Remark						Verdict
		acceptable if determined so in practical performance tests.							
14	Exhalation valve(s)	Exhalation valve(s) shall function correctly in all orientations	Not Applicable						N/A
		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.	Not Applicable						
		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						
		When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s	A.R.	Not Applicable					
			M.S.	Not Applicable					
			T.C.	Not Applicable					
15	Breathing resistance	Inhalation: 30 L/min ☐ FFP1: ≤ 0.6 mbar; ☒ FFP2: ≤ 0.7 mbar; ☐ FFP3: ≤ 1.0 mbar;	Pos.	A	B	C	D	E	F
			A.R	0.4	0.4	0.4	0.3	0.3	
				0.3	0.3	0.3	0.2	0.2	
				0.3	0.2	0.3	0.3	0.2	
			S.W.	0.3	0.3	0.2	0.2	0.3	
				0.3	0.3	0.3	0.3	0.2	
				0.3	0.2	0.3	0.3	0.2	
			T.C.	0.3	0.3	0.2	0.2	0.3	
				0.3	0.3	0.2	0.3	0.3	
				0.2	0.2	0.2	0.1	0.2	
		Inhalation: 95 L/min ☐ FFP1: ≤ 2.1 mbar; ☒ FFP2: ≤ 2.4 mbar; ☐ FFP3: ≤ 3.0 mbar;	A.R.	1.3	1.3	1.3	1.2	1.3	
				1.1	1.1	1.1	1.0	1.0	
				1.2	1.2	1.1	1.2	1.1	
			S.W.	1.3	1.3	1.3	1.2	1.2	
				1.3	1.3	1.2	1.2	1.3	
				1.2	1.2	1.1	1.1	1.2	
			T.C.	1.1	1.1	1.1	1.0	1.0	
				1.1	1.1	1.1	1.0	1.0	
				0.8	0.8	0.8	0.8	0.7	
		Exhalation: 160 L/min ☐ FFP1: ≤ 3.0 mbar; ☒ FFP2: ≤ 3.0 mbar;	A.R.	3.2	3.2	3.0	3.1	3.0	
				3.1	3.1	3.1	2.9	3.0	
				2.4	2.4	2.2	2.3	2.3	

Serial	Test item	Technical requirements	Result - Remark					Verdict
		FFP3: ≤ 3.0 mbar	S.W.	2.8	2.8	2.7	2.7	2.6	
				2.8	2.7	2.6	2.8	2.8	
				2.7	2.6	2.7	2.6	2.7	
			T.C.	2.8	2.6	2.7	2.8	2.6	
				2.8	2.7	2.7	2.8	2.6	
				2.8	2.8	2.6	2.7	2.7	
			A: facing directly ahead; B: facing vertically upwards; C: facing vertically downwards; D: lying on the left side; E: lying on the right side						
16	Demountable parts	All demountable parts (if fitted) shall be readily connected and secured, where possible by hand	Not Applicable						N/A

Note:

The test results presented in this report relate only to the object tested.

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Throughout this report a point is used as the decimal separator.

The test items practical performance, total inward leakage; penetration of filter material, compatibility with skin and field of vision are not within CNAS recognized scope.

Possible test case verdicts:

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)

ANNEX: Photo-documentation

------ End of test report ------