



#### **Test Requirement:**

According to the requirement of the Module C2 (SPC CE-062\_EN M3 PPE ) of Applus+, the test item(s) of the sample is according to the standard EN149:2001+A1:2009.

Product:	Particle Filtering Half Mask
Report No.:	PTC20082802401C-EN01
APPLUS +With ID number:	20/32301583
Client:	Shenzhen DreamCan Technology Co., Ltd
Client Address:	301/B3,Huaqiang Industrial Park, Qingfeng Ave., Baolong, Longgang District, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen DreamCan Technology Co., Ltd
Manufacturer Address:	301/B3,Huaqiang Industrial Park, Qingfeng Ave., Baolong, Longgang District, Shenzhen, Guangdong, China
Contact:	Yan Bing Wang
Model(s):	DP-A-24L-K
Classification:	FFP3 NR
Date of Tests:	2020.09.03~2020.09.09
	SERVICE STREET

Signed for and on Behalf of PTC

Prepare by:

Checked by:

me



MA

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### Summary of assessment

Clause	Assessment
7.3 Visual inspection	PASS
7.5 Material	PASS
7.9.1 Total inward leakage	PASS
7.9.2 Penetration of filter material	PASS
7.12 Carbon dioxide content of the inhalation air	PASS
7.16 Breathing resistance	PASS

#### Remark:

PASS: comply with requirement of standard N/A: not application Not tested: the clause were not required

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Test Result:

Requirement	Test Result	Conclusion	
<b>7.3 Visual inspection</b> The visual inspection shall also include the marking and the information supplied by the manufacturer.	Comply	Pass	
7 E Motoviol			

#### 7.5 Material

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.

Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.

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.

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

#### 7.9.1 Total inward leakage

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.

#### 7.9.2 Penetration of filter material

The penetration of the filter of the particle filtering half mask shall meet the requirements of Table 1.

	Sodium chloride test	Paraffin oil test 95
0,0,	95 l/min 🖉 🖉	, l/min 🖉 🖉
FFP1	≤ 20%	≤ 20%
FFP2	6%0	≤ 6%
FFP3	≤ 1%	≤ 1%

No mechanical failure after undergoing the conditioning described in 8.3.1, No collapse when conditioned in accordance with 8.3.1 and 8.3.2.

FFP3, Test results are shown in Annex A Table 7.9.1-A&B

Pass

Pass

FFP3 , Test results are shown in Annex A Table 7.9.2.

Pass

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Pass

Pass

### 7.12 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)

Test results are shown in Annex A Table 7.12.

#### 7.16 Breathing resistance

1 - <u>2</u> - 2 -	Maximun	n permitted resist	ance (mbar)	
Classification	Inha	Exhalation		
2	30 l/min	95 l/min	160 l/min	
O FFP1 📿 O	0.6	2.1	. 3.0	
FFP2	0.7	2.4	3.0	
FFP3 _	1.0	3.0	3.0	

FFP3. Test results are shown in Annex A Table 7.16.

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## Annex A: Summarization of Test Data

#### Table 7.9.1-A: Inward Leakage Test Data

Test specification: EN 149:2001+A1:2009 Clause 8.5

Subject	Sample No.	Condition	Walk (%)	Head Side/side (%)	Head up/down (%)	Talk (%)	Walk (%)	Mean (%)
Lv	1	A.R	2.3	1.9	1.6	1.7	1.6	1.8
्ॅं 🖬 💉	2	A.R	1.9	2.0	1.8	2.1	1.6	1.9
Zhong	3	A.R	2.0	1.9	2.0	1.9	1.8	0 1.9
Xu	4	A.R	1.9	2.2	1.4	1.9	1.8	1.8
Ма	5	A.R	1.9	2.5	1.7	1.8	1.7	1.9
Chen	6	T.C	2.0	1.8	1.6	1.8	2.3	1.9
Chen	7	T.C	2.1	1.7	1.8	1.8	2.2	1.9
Zhuo	8	T.C	2.2	1.7	.01.4.0	1.9	2.1	0 1.9
Chen	9	T.C	2.0	2.0	1.7	1.8	2.2	1.9
Zhang	10	T.C	2.5	1.9	1.8	2.4	2.5	2.2

### Table 7.9.1-B: Facial dimension

Subject	Face Length	Face Width	Face Depth	Mouth Width
Lv	113	139	104	53
io di io	120	135	112	55
Zhong	108	135	106	56
Xu	120	150	120	70
Ма	130	170	130	80
Chen	110	160	90	40
Chen	115	145	110	50
Zhuo	103	146	100	50
Chen	110	145	95	40
Zhang	144	141	101	54

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## Table 7.9.2: Penetration of filter material

Test specification: EN 149:2001+A1:2009 Clause 8.11

Aerosol	Condition	Sample No.	Penetration (%)	Assessment
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		ິ <u>1</u> 1 ິ	0.2	8 6 6
	As received	12	0.1	
2° 2° 2° 2° 2		13	0.1	8 8 8
20 X0 X0	0, 0, 0, 0, 0		0.1	20 20 2
Sodium chloride test	Simulated wearing treatment	15	0.2	8.8.8
やややき		16	0.1	8 8 8
	5 5 5 5 5 S	17	0.1	
8° 4° 4° 4	Mechanical strength + Temperature conditioned	18	0.1	8 8 6
0, 0, 0,	Temperature conditioned	19	0.1	10 10 1
5 6 6 8	6.6.6.6.	20	0.1	Pass
x0 x0 x0 8	As received	21	0.1	8 8 6
		22	0.1	
きんぞく		23	0.1	8 8 6
Paraffin oil test	Simulated wearing treatment	24	0.1 0	x0 x0 x
5. 5. 5. 5		25	0.1	5, 5, 5
N N N N	No 26 26 26 30	26	0.4	8 8 8
	Mechanical strength +	27	0.2	
8° 8° 8° 8		28	0.2	8 8 8

## Table 7.12: Carbon dioxide content of the inhalation air

### Test specification: EN 149:2001+A1:2009 Clause 8.7

Condition	Sample No.	Re	esult (%)	Assessment
2° 2° 2° -	29	0.03		\$`\$`\$`
As received	30	0.03	Mean value:	Pass
	31	0.03	0.03	9 89 88 98 9

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Table 7.16: Breathing resistance (mbar)

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0 n 0 n	Flow Ra	Flow Rate		Flow Rate 32						33				34				
6 6	30 Intratesting I/min		3	Ś	0.38	2	8 3		8	0.34	8	8	2	\$	0.39	Ś	1	
As received	Inhalation	95 I/min	5	9.3	1.36	θ.	P.	2	29	1.33	20	80	8	1 2	1.34	2 6	9.	
10 10	Exhalation	160	Α	в	с	P	Æ	A	в	С	D	E	Α	в	с	D	E	
5 5	Exhalation	l/min	2.36	2.33	2.31	2.34	2.34	2.32	2.34	2.28	2.34	2.34	2.36	2.36	2.34	2.34	2.32	
~ ~	Flow Ra	ite 🔨	5	2.3	35	8.	£ .	Ч.	20	36	20	20	5	1	37	0 8	9.0	
Simulated	30 I/min	a x	σ,	0.32	0.	20	20.	20	0.33	20	20	10	1.15	0.34	o k	6		
wearing treatment	9 95 //min	95 1.19					60.3	1.18				1.22						
ueaunent	Exhalation   160 I/min	160	A	в	C	D	E (	A	в	С	D	E	A	в	С	D	Ĕ	
10 10		l/min	2.13	2.13	2.15	2.14	2.14	2.09	2.11	2.09	2.11	2.08	2.10	2.08	2.08	2.09	2.12	
8. 8.	Flow Ra	ite	1	2	38	. 1		39				× _	40					
Temperatur	\$~ \$	30 I/min	Ĩ Ý.	e é	0.39	8	83	Ś	é.	0.38	1	é.	0	Ś.	0.38	Ŕ	Ч қ	
e conditioned	Innalation 95		5	9.3	1.40	e ,	ø,	2	20	1.38	10	10	5	No.	1.35	9. 8	9 ,	
conditioned	Fullelitien	160	Α	в	с	D	E	Α	в	с	D	E	Α	в	С	D	E	
8 8	Exhalation	l/min	2.37	2.38	2.35	2.39	2.36	2.37	2.33	2.36	2.38	2.36	2.34	2.36	2.37	2.36	2.36	

A: Facing directly ahead D: Lying on the left side

B: Facing vertically upwards

E: Lying on the right side

C: facing vertically downwards

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Test	Uncertainty
Total inward leakage	3.8%
Penetration of filter material(NaCl)	3.5%
Penetration of filter material(Paraffin oil)	4.2%
Carbon dioxide content of the inhalation air	4.5%
Breathing resistance(30L/min)	5.2%
Breathing resistance(95L/min)	5.4%
Breathing resistance(160)L/min)	6.0%

## Photo(s) of Sample:



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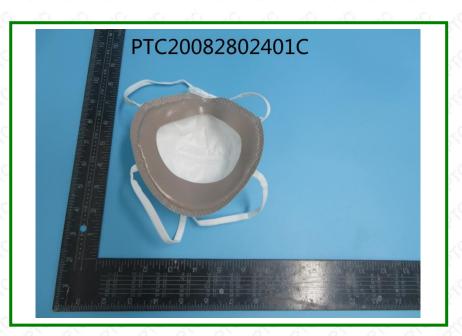
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\*\*\*End of Report\*\*\*

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