EN 149:2001+A1:2009

Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking

MEASUREMENT AND TEST REPORT

For

Yiwu Hongsheng Toys Co., Ltd.

No.B-49,DongyuanIndustrialZone,JiangdongStreet,YiwuCity,Zhejiang

Model: /

April 26, 2020

This Report Concerns: Original Report	**Equipment Type:** PM2.5(filter chip-non-medical)

Test Engineer:	Eric /
Report Number:	HY20DC-199S
Test Date:	April 20-April 26, 2020
Reviewed By:	Terry/
Prepared By:	**Shenzhen HuaYu Test Technology Co,.Ltd.** No. D880, 4th Floor, Building 1, Detai Industrial Park, Huarong Road No. 460, Dalang Street, Longhua New District, Shenzhen

TEST REPORT
EN 149:2001+A1:2009
Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking

Report

Report reference No.	: HY20DC-199S
Tested by (signature)	: Eric /
Reviewed by (+signature)	: Terry /
Date of issue	: April 26, 2020

Testing laboratory

Name	: Shenzhen HuaYu Test Technology Co,.Ltd.
Addre	; No. D880, 4th Floor, Building 1, Detai Industrial Park, Huarong Road No. 460, Dalang Street, Longhua New District, Shenzhen
Test location	: Same as above

Client

Name	: Yiwu Hongsheng Toys Co., Ltd.
Address	; No.B-49,DongyuanIndustrialZone,JiangdongStreet,YiwuCity,Zhejiang

Test specification

Standard	: EN 149:2001+A1:2009
Non-standard test method	: N.A.

Test item

Description	: PM2.5(filter chip-non-medical)
Model No.	: N.A.
Manufacturer	: Yiwu Hongsheng Toys Co., Ltd.
Address	: No.B-49,DongyuanIndustrialZone,JiangdongStreet,YiwuCity,Zhejiang
Factory	: Yiwu Hongsheng Toys Co., Ltd.
Address	: No.B-49,DongyuanIndustrialZone,JiangdongStreet,YiwuCity,Zhejiang
Model difference	: /

EN 149			
Clause	Requirement - Test	Result - Remark	Verdict
4	Description		P
5	Particle filtering half masks are classified according to their filtering efficiency and their maximum total inward leakage.	FFP2	P
6	Particle filtering half masks meeting the requirements of this European Standard shall be designated in the following manner		P
7	Requirements		P
7.1	In all tests all test samples shall meet the requirements.		P
7.2	Unless otherwise specified, the values stated in this European Standard are expressed as nominal values		P
7.3	The visual inspection shall also include the marking and the information supplied by the manufacturer.		P
7.4	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.		P
7.5	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.		P
7.6	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.		P
7.7	The particle filtering half mask shall undergo practical performance tests under realistic conditions.		P
7.8	Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	No sharp edges and burrs	P
7.9	Leakage		
7.9.1	The laboratory tests shall indicate that the particle filtering half mask can be used by the wearer to protect with high probability against the potential hazard to be expected.	12 %	P
7.9.2	he penetration of the filter of the particle filtering half mask shall meet the requirements of Table 1.	FFP2	P
7.10	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.		P
7.11	The material used shall not present a danger for the wearer and shall not be of highly flammable nature.		P
7.12	The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume).		P
7.13	The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.		P

EN 149			
Clause	Requirement - Test	Result - Remark	Verdict
7.14	The field of vision is acceptable if determined so in practical performance tests.		P
7.15	A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.		P
7.16	The breathing resistances apply to valved and valveless particle filtering half masks and shall meet the requirements of Table 2.	Inhalation: 0.7 Exhalation: 2.3	P
7.17	Clogging		P
7.17.1	For single shift use devices, the clogging test is an optional test.		P
7.17.2	Breathing resistance		P
7.17.2.1	Valved particle filtering half masks	3 mbar	P
7.17.2.2	Valveless particle filtering half masks	3 mbar	P
7.17.3	Penetration of filter material		P
7.18	All demountable parts (if fitted) shall be readily connected and secured, where possible by hand.		P

Test	**Required level**	**Test Date**	**Average value**
Paraffin Oil penetration	<6% after 120mg exposure	April.26,2020	5,13%
NaCI penetration	<6% after 120mg exposure	April.26,2020	0,63%
Facial leakage	46 resultsW″% 8 averages in 10W8%	April.26,2020	Compliant
Air permeability inhalation 30l/min	W0,7 mbars	April.25,2020	0,25 mbar*
Air permeability inhalation 95l/min	W2,4 mbars	April.25,2020	0,73 mbar*
Air permeability exhalation 160l/min	W3 mbars	April.24,2020	1,24 mbar*
Carbon dioxide content	<1,0%	April.24,2020	0,70%
Flammability	Must not burn or continue to burn for more than 5 seconds after the withdrawal of the flame	April.24,2020	Compliant

Remark:
Protection(D): protection against solid and liquid aerosols, combined with resistance higher to clogging tested with dolomite dust
*Average of the test results (Receiving State + Simulated port processing)

Appendix for

Photo 1