

Premium FFP2 Mask, non-sterile, CE 0598

Packing 4 x 5 pcs

EN 149:2001+A1:2009 (NR)



KEYOU Medical NON-STERILE **FFP2 NR**
EN149:2001+A1:2009

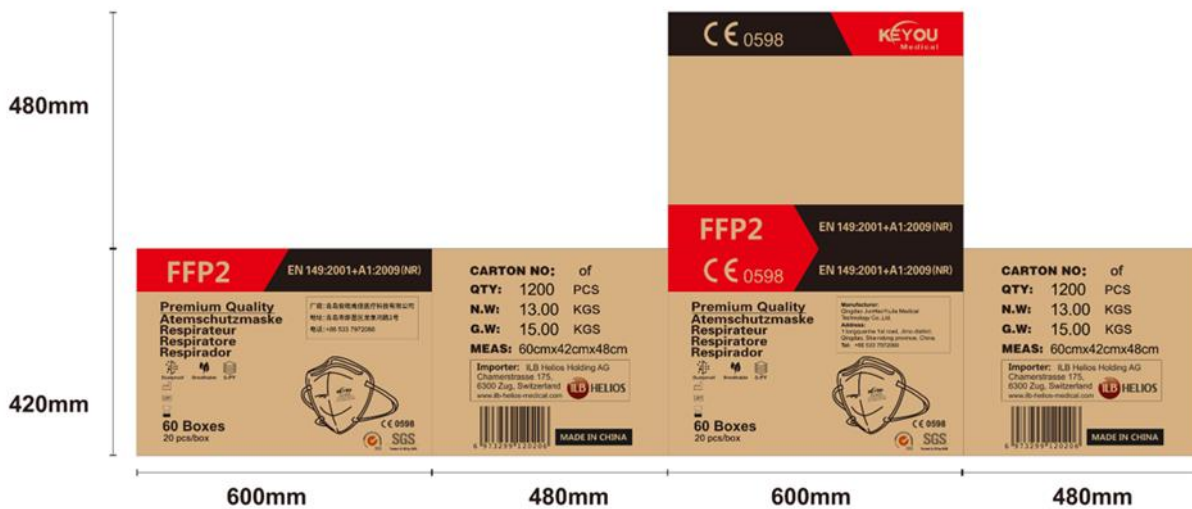
Premium Quality
Atemschutzmaske
Respirateur
Respiratore
Respirador

Dustproof Breathable 5-PY

20 PCS
INCL 20 HOOKS

Importer: ILB Helios Holding AG
Chamerstrasse 175, 6300 Zug,
Switzerland

ILB HELIOS ISO 9001 SGS **CE 0598**
Tested & CE by SGS



Additionally incl.: 20 x practical mounting hooks



FFP2 Mask non-sterile / CE 0598 / EN 149:2001+A1:2009 (NR)

- **Certified FFP2 protective mask**, white with elastic ear strap, **not sterile**
- **EN 149:2001+A1:2009 (NR), CE 0598**
- **Filter Performance: BFE > 94% for 0.6 µm particle**
- **Test report from SGS**, test institution with headquarters in Geneva www.sgs.ch
- 3D shape with nose clip
- PPE product according **(EU) 2016/425 Regulation**
- **5 high quality layers / melt blown**
- not woven / no fiberglass / no silicone
- **Packaging in practical 4 x 5 pcs bag** and with 4 languages and user manual
- Comfortable to carry with **an additional practical carrying handle**
- **20 pieces, 4 x 5 piece per box**, 1,200 per carton, 12 kg per carton, 7,200 pieces per pallet
- **Shelf life 3 years** from date of production

Technical specifications

- **FFP2 with CE 0598** disposable particle filter masks with ear loop and nose clip for protection against solid and liquid aerosols
- Filter performance according to **EN 149:2001+A1:2009 (NR)** standard: 94%
- Manufacturer with **ISO 9001** and **CE** certificate issued by **SGS**
- **Adjustable nose clip**
- **Very stable and comfortable to wear**, can also be worn by people who wear glasses
- Mask size: 10.7 x 2 x 16 cm
- **High quality 5-layer fleece** manufactured with melt-blown process:
 1. Layer: high quality non-woven fabric
 2. Layer: high density melt spray fabric
 3. Layer: Static cotton fleece
 4. Layer: high density melt spray fabric
 5. Layer: high quality non-woven fabric

Packaging unit: box of 20 pcs (4 x 5 pcs) / 1,200 pcs in 1 carton,
7,200 pcs on a EUR-pallet

Item	Details	Remark
China Ministry of Commerce White List Producer	Yes	CE
CE Certificate	SGS	NB 0598
Classification	Acc. to PPE Regulation (EU) 2016/ 425	Category III

Test Report by	SGS	Swiss certification institution
Applied standard	EN149:2001+A1: 2009 (NR)	FFP 2 / NR
Factory ISO Certificates	9001	Also by SGS
Product classification	PPE	
Sterile / Non Sterile	Non Sterile	
Color	White	
Valve	Non	
Packaging	20 pcs/ box 1200 pcs/ Carton 12 kg / Carton	

Important NOTE: Medical surgical masks of type IIR with splash protection according to (EN 14683: 2019 + AC: 2019) with CE, as well as FFP2 masks (EN 149: 2001 + A1: 2009 (NR)) with CE offer a significantly higher protective effect than hygiene masks or normal community masks. However, the prerequisite is that they also filter particles below 1 μm well and that the products are certified which have test reports from authorized test centres and that they have a valid CE and the masks are used correctly.

ILB only offers correctly certified masks with increased protection please check our test reports.

Technical know-how FFP 1/2/3 Differences and standards analogous to FFP2

Filter classes	Protection	When should I use?
FFP1	80%	These masks should never be used for protection! – only for comfort or hygiene, for example in the building or food industry.
FFP2	94%	These will only provide protection against non-hazardous, nuisance particles, such as smoke, fog and some aerosols. These are often used in the metal and mining industry.
FFP3	99.95%	This offers protection from any kind of particle that could damage your lungs, including poisonous or harmful dust, smoke, aerosols, or even pathogens and radioactive substances. These are used in any chemicals industry.

FFP1, FFP2 & FFP3 filters will only protect against particles and not gas or vapour.

Based on this comparison, it is reasonable to consider China KN95, AS/NZ P2, Korea 1st Class, and Japan DS FFRs as "equivalent" to US NIOSH N95 and European FFP2 respirators, for filtering non-oil-based particles such as those resulting from wildfires, PM 2.5 air pollution, volcanic eruptions, or bioaerosols (e.g. viruses). However, prior to selecting a respirator, users should consult their local respiratory protection regulations and requirements or check with their local public health authorities for selection guidance.

Certification/ Class (Standard)	N95 (NIOSH-42C FR84)	FFP2 (EN 149-2001)	KN95 (GB2626-2006)	P2 (AS/NZ 1716:2012)	Korea 1 st Class (KMOEL - 2017-64)	DS (Japan JMHLW-Notification 214, 2018)
Filter performance – (must be ≥ X% efficient)	≥ 95%	≥ 94%	≥ 95%	≥ 94%	≥ 94%	≥ 95%
Test agent	NaCl	NaCl and paraffin oil	NaCl	NaCl	NaCl and paraffin oil	NaCl
Flow rate	85 L/min	95 L/min	85 L/min	95 L/min	95 L/min	85 L/min
Total inward leakage (TIL)* – tested on human subjects each performing exercises	N/A	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (individual and arithmetic mean)	≤ 8% leakage (arithmetic mean)	Inward Leakage measured and included in User Instructions
Inhalation resistance – max pressure drop	≤ 343 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min) ≤ 500 Pa (clogging)	≤ 350 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	Varied – see above	85 L/min	Varied – see above	Varied – see above	40 L/min
Exhalation resistance - max pressure drop	≤ 245 Pa	≤ 300 Pa	≤ 250 Pa	≤ 120 Pa	≤ 300 Pa	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	160 L/min	85 L/min	85 L/min	160 L/min	40 L/min
Exhalation valve leakage requirement	Leak rate ≤ 30 mL/min	N/A	Depressurization to 0 Pa ≥ 20 sec	Leak rate ≤ 30 mL/min	visual inspection after 300 L /min for 30 sec	Depressurization to 0 Pa ≥ 15 sec
Force applied	-245 Pa	N/A	-1180 Pa	-250 Pa	N/A	-1,470 Pa
CO ₂ clearance requirement	N/A	≤ 1%	≤ 1%	≤ 1%	≤ 1%	≤ 1%

*Japan JMHLW-Notification 214 requires an Inward Leakage test rather than a TIL test.

Use of FFP 2 masks

For the correct use of your FFP2 mask please check also local work safety regulation and read carefully the user manual. If you are not sure whether the mask will protect you sufficiently in the existing work environment, ask the responsible work safety authority before using it. The mask is for single use, do not clean the mask, don't wash it, if the mask is defect, dirty or wet, do not use it and replace it immediately.

FFP2 masks without a valve protect the wearer and the environment / other persons. All masks with a valve only protect the wearer while the air escapes unfiltered through the valve. They protect against harmful water and oil-based particles, but not against carcinogenic substances, radioactive particles, airborne biological agents of risk group 3 and enzymes.

The total leakage (leakage) is a maximum of 8% at least 94% of the pollutants are filtered out of the air.

Typical applications for an FFP2 mask include handling softwood, glass fibers, metal, plastics (not PVC) and oil mist.

The Robert Koch Institute Germany (RKI) and Swiss BAG recommend FFP2 masks and FFP3 masks for the treatment and care of patients with an infection by the SARS-CoV-2 corona virus.

Loose-fitting facemask masks do not prevent people from contaminating their surroundings with exhaled droplets. The wearer himself is only protected to a limited extent because the mask does not offer adequate protection against aerosols (the finest droplets carried in the air).

Tight fitting FFP masks reliably protect the wearer from viruses but does not offer 100% protection. These respirators filter even the smallest particles and aerosols from the air. Masks with an exhalation valve are more comfortable to wear. Respirators without an exhalation valve also prevent the mask wearer from contaminating their surroundings with exhaled droplets. FFP masks are available in different protection levels.

ILB Helios Holding AG

We are a former ABB company specializing in PPE and medical product supply management, manufacturing, quality assurance and logistics. Thanks to our many years of experience and our international network, we guarantee a high-quality supply chain and distribution. We are also ISO 9001 / 140001 certified.

We supply major customers worldwide with PPE and medical products. As a wholesaler, we have a central warehouse in Switzerland. To fight pandemics, we always have several million masks at our Swiss warehouse and guarantee fast and reliable delivery.

ISO 9001 certifiat from SGS

Certificate CN20/11335

The management system of

Qingdao Junhaoyujia Medical Technology Co., Ltd.

Business Registration Address: J4-3-555, the North of Longquanhe 1st, the West of Fenghuangshan 3rd Road, Jimo District, Qingdao City, Shandong Province, P.R. China
Business Operation Address: 1 Longquanhe 1st Road, Jimo District, Qingdao City, Shandong Province, P.R. China

Unified Social Credit Code 91370282MA3RREX88A

has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities

Manufacture of Personal Protective Respirators

This certificate is valid from 2 November 2020 until 1 November 2023 and remains valid subject to satisfactory surveillance audits. Recertification audit due a minimum of 60 days before the expiration date. Issue 1. Certified since 2 November 2020

Authorised by

SGS United Kingdom Ltd
Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com
The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China www.cnca.gov.cn

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HC SGS 9001 2015 0118

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CE certificat from SGS NB 0598

SGS

Certificate FI20/966471

**Qingdao Junhaoyujia
Medical Technology Co.,
Ltd.**

1 Longquanhe 1st Road, Jimo District,
Qingdao, ShanDong Province,
China

It is certified that the manufacturer's technical file and the PPE product detailed on
page 2 have been assessed and found to be in accordance with

Regulation (EU) 2016/425
Module B, EU type-examination

This certificate is valid from 27 August 2020 until 27 August 2025
1, Certified since 27 August 2020

Authorized by

FINAS
Finnish Accreditation Service
S003 (EN ISO/IEC 17065)

SGS FIMKO OY, Notified Body 0598
Tukomode 8, FI-00380, Helsinki, Finland
t +358 9 696 351 f +358 9 692 5474 www.sgs.com

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Certificate FI20/966471, continued

**Qingdao Junhaoyujia
Medical Technology Co.,
Ltd.**

Regulation (EU) 2016/425
Module B, EU type-examination

Issue 1

PPE Product

KEYOU (logo) KY2020777, single use particle filtering half mask.

It is certified that the manufacturer's technical file and the above mentioned PPE have been assessed and found to meet the applicable Essential Health and Safety Requirements in Annex II of Regulation (EU) 2016/425 Personal Protective Equipment

The following have been applied:

EN 149:2001 + A1:2009 (Respiratory protective devices – Filtering half masks to protect against particles) for a performance classification FFP2 NR.

This certificate is issued on the strict condition that appropriate checks on manufactured PPE, as detailed in Article 19 (c) of the Regulation are implemented and maintained while the model is in production

Certification is based on technical file reference: KY2020777, Version 3 dated 2020-07-30

SGS Reference Number UK/CRS 241402

This certificate remains the property of SGS Fimko Oy to whom it must be returned on request.



FINAS
Finnish Accreditation Service
S003 (EN ISO/IEC 17065)

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Certificate CN20/42275

The management system of

Qingdao Junhaoyujia Medical Technology Co., Ltd.

1 Longquanhe 1st Road, Jimo District, Qingdao,
Shandong Province, China
has been assessed and certified as meeting the requirements of

Regulation (EU) 2016/425 Module C2

For the following activities

**Manufacture of KEYOU(logo) KY2020777 single use particle filtering
half mask.**

**(Note: All products marked CE0598 must have a valid EU type-
examination certificate issued under Module B or a valid EC type-
examination certificate issued under Article 10 of Directive
89/686/EEC.)**

This certificate is valid from 14 September 2020
and remains valid subject to satisfactory surveillance audits.
Issue 1. Certified since 14 September 2020

Authorised by

SGS FIMKO OY, Notified Body 0598

Takomitie 8, FI-00380 Helsinki, Finland
t +358 9 696 361 f +358 9 692 5474 www.sgs.com

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SGS test report according to EN149: 2001 + A1: 2009 (NR)



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国际互认
检测
TESTING
CNAS L0599

Test Report **SL52035261142001TX** **Date: June 23,2020** **Page 1 of 10**

QINGDAO JUNHAO YUJIA MEDICAL TECHNOLOGY CO.,LTD
LONGQUANHE ROAD NORTH, FENGHUANG SHAN SAN ROAD WEST, JIMO DISTRICT, QINGDAO CITY,
SHANDONG PROVINCE

The following sample(s) was/were submitted and identified on behalf of the client as:

- Sample Description : (A) Protective face mask
- Sample color : White
- Style no : KY2020777

- Sample Receiving Date : Apr 13, 2020
- Testing Period : Apr 13, 2020 - Jun 23, 2020

- Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

- Test Performed : Selected test(s) as requested by applicant

Conclusion:

Sample No.	Recommendation Level
(A)	FFP2 NR

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center

Sara Guo (Account Executive)



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Test Report

SL52035261142001TX

Date: June 23,2020

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Test Result

Respiratory Protective Devices- Filtering Half Masks to Protect against Particles- Requirements, Testing, Marking

(EN 149:2001+A1:2009)

Clause 7.4 Packaging

(EN 149:2001+A1:2009 Clause 8.2)

Test Requirement	Results	Comment
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.	Comply	Pass

Clause 7.5 Material*

(EN 149:2001+A1:2009, Clause 8.2 & 8.3.1 & 8.3.2)

Test Requirement	Results	Comment
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.	Comply	Pass
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.	Comply	
When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.	Comply	
Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Comply	

Clause 7.6 Cleaning and Disinfecting*

(EN 149:2001+A1:2009, Clause 8.4 & 8.5 & 8.11)

Test Requirement	Results	Comment
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. 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.	Not applicable (Not designed to be re-usable)	N.A.

Clause 7.7 Practical Performance*

(EN 149:2001+A1:2009, Clause 8.4)

Test Requirement	Results	Comment
The particle filtering half mask shall undergo practical performance tests under realistic conditions. These general tests serve the purpose of checking the equipment for imperfections that cannot be determined by the tests described elsewhere in this standard.	No imperfections	Pass

Clause 7.8 Finish of Parts

(EN 149:2001+A1:2009, Clause 8.2)

Test Requirement	Results	Comment
Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	No sharp edges or burrs	Pass



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Test Report

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Date: June 23,2020

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Clause 7.9.1 Total Inward Leakage*
(EN 149:2001+A1:2009, Clause 8.5)

Test Requirement	Results	Comment
<p>The total inward leakage consists of three components: face seal leakage, exhalation value leakage(if exhalation value fitted) and filter penetration. For particulate 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</p> <p>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</p>	Detail refer to Appendix 1	Meet FFP1, Meet FFP2

Appendix 1: Summarization of Test Data

Inward Leakage Test Data

Subject	Sample No.	Condition	Walk(%)	Head Side/side(%)	Head up/down(%)	Talk(%)	Walk(%)	Mean(%)	
1#	1	A.R.	4.5	5.2	5.3	5.3	4.7	5.0	
2#	2	A.R.	4.2	4.8	4.7	5.0	4.3	4.6	
3#	3	A.R.	4.5	5.6	5.8	5.7	5.0	5.3	
4#	4	A.R.	4.2	4.8	5.0	5.0	4.5	4.7	
5#	5	A.R.	4.5	5.2	5.4	5.6	4.7	5.1	
6#	6	T.C.	5.1	6.0	6.3	6.4	5.6	5.9	
7#	7	T.C.	4.9	5.1	5.3	5.5	4.9	5.1	
8#	8	T.C.	4.1	4.9	4.8	5.0	4.4	4.6	
9#	9	T.C.	4.2	4.9	5.3	5.4	4.5	4.9	
10#	10	T.C.	4.5	5.2	5.4	5.3	4.8	5.0	
50 out of the 50 individual exercise results ≤ 11 %					Pass				
10 of the 10 individual arithmetic means ≤ 8%									

Facial Dimension

Subject	Face length(mm)	Face Width(mm)	Face Depth(mm)	Mouth Width(mm)
1#	120	130	109	59
2#	122	140	115	65
3#	119	160	139	55
4#	112	122	119	63
5#	110	130	118	60
6#	115	119	110	59
7#	112	123	113	55
8#	103	130	100	50
9#	118	139	130	63
10#	120	135	125	50



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Clause 7.9.2 Penetration of Filter Material*
 (EN 149:2001+A1:2009, Clause 8.11 & EN 13274-7:2019)

Test Requirement			Results	Comment
The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table.			Detail refer to Appendix 2	Meet FFP1, Meet FFP2
Classification	Maximum penetration of test aerosol			
	Sodium chloride test 95 l/min	Paraffin oil test 95 l/min		
	%	%		
	max.	max.		
FFP1	20	20		
FFP2	6	6		
FFP3	1	1		

Appendix 2: Summarization of Test Data

Penetration of filter material

Aerosol	Condition	Sample No.	Penetration (%)
Sodium chloride test	As received	11	0.1
		12	0.2
		13	0.1
	Simulated wearing treatment	14	0.1
		15	0.1
		16	0.1
	Mechanical strength +Temperature conditioned	17	0.3
		18	0.3
		19	0.2
20		1.0	
Paraffin oil test	As received	21	0.8
		22	0.9
		23	1.0
	Simulated wearing treatment	24	1.0
		25	1.1
		26	2.2
	Mechanical strength +Temperature conditioned	27	2.5
		28	2.3

Flow conditioning: Single filter: 95.0 L/min



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Clause 7.10 Compatibility with Skin*
(EN 149:2001+A1:2009, Clause 8.4 & 8.5)

Test Requirement	Results	Comment
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.	No irritation or any other adverse effect to health	Pass

Clause 7.11 Flammability*
(EN 149:2001+A1:2009, Clause 8.6)

Test Requirement	Results	Comment
The material used shall not present a danger for the wearer and shall not be of highly flammable nature 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.	Detail refer to Appendix 3	Pass

Appendix 3: Summarization of Test Data

Flammability

Condition	Sample No.	Result	Assessment
As received	29	Burn for 0.1s	Pass
	30	Burn for 0.1s	
Temperature conditioned	31	Burn for 0.1s	
	32	Burn for 0.1s	

Clause 7.12 Carbon Dioxide Content of The Inhalation Air*
(EN 149:2001+A1:2009, Clause 8.7)

Test Requirement	Results	Comment
The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume)	Detail refer to Appendix 4	Pass

Appendix 4: Summarization of Test Data

Carbon Dioxide Content of The Inhalation Air

Condition	Sample No.	Result	Assessment
As received	33	0.7125%	Pass
	34	0.7130%	
	35	0.7101%	
		Mean value :0.71%	



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Testing Center

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Clause 7.13 Head Harness*

(EN 149:2001+A1:2009, Clause 8.4 & 8.5)

Test Requirement	Results	Comment
The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.	Comply	Pass
The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position and be capable of maintaining total inward leakage requirements for the device.	Comply	

Clause 7.14 Field of Vision *

(EN 149:2001+A1:2009, Clause 8.4)

Test Requirement	Results	Comment
The field of vision is acceptable if determined so in practical performance tests.	Comply	Pass

Clause 7.15 Exhalation Valve(s)*

(EN 149:2001+A1:2009, Clause 8.2 & 8.9.1 & 8.3.4 & 8.8)

Test Requirement	Results	Comment
(a) A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.	Not applicable due to exhalation valve	N.A
(b) 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 due to exhalation valve	
(c) 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 due to exhalation valve	
(d) When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10N applied for 10 s.	Not applicable due to exhalation valve	



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Clause 7.16 Breathing Resistance*
(EN 149:2001+A1:2009, Clause 8.9)

Test Requirement	Results	Comment																						
The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table.	Detail refer to Appendix 5	Meet FFP1, Meet FFP2, Meet FFP3																						
<table border="1"> <thead> <tr> <th rowspan="3">Classification</th> <th colspan="3">Maximum permitted resistance (mbar)</th> </tr> <tr> <th colspan="2">Inhalation</th> <th>Exhalation</th> </tr> <tr> <th>30 l/min</th> <th>95 l/min</th> <th>160 l/min</th> </tr> </thead> <tbody> <tr> <td>FFP1</td> <td>0.6</td> <td>2.1</td> <td>3.0</td> </tr> <tr> <td>FFP2</td> <td>0.7</td> <td>2.4</td> <td>3.0</td> </tr> <tr> <td>FFP3</td> <td>1.0</td> <td>3.0</td> <td>3.0</td> </tr> </tbody> </table>			Classification	Maximum permitted resistance (mbar)			Inhalation		Exhalation	30 l/min	95 l/min	160 l/min	FFP1	0.6	2.1	3.0	FFP2	0.7	2.4	3.0	FFP3	1.0	3.0	3.0
Classification				Maximum permitted resistance (mbar)																				
				Inhalation		Exhalation																		
			30 l/min	95 l/min	160 l/min																			
FFP1	0.6	2.1	3.0																					
FFP2	0.7	2.4	3.0																					
FFP3	1.0	3.0	3.0																					

Appendix 5: Summarization of Test Data

Breathing resistance (mbar)

As received	Flow rate		Specimen No.36					Specimen No.37					Specimen No.38				
			A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Inhalation	30 l/min		0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.4
		95 l/min	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.8	1.7	1.8	1.7	1.8	1.7	1.8	1.7
	Exhalation	160 l/min	2.2	2.3	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3
Simulated wearing treatment	30 l/min		0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.5
		95 l/min	1.7	1.8	1.7	1.8	1.7	1.7	1.8	1.8	1.7	1.7	1.7	1.8	1.7	1.8	1.8
	Exhalation	160 l/min	2.3	2.3	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.3
Temperature conditioned	30 l/min		0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.4
		95 l/min	1.8	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.7	1.8	1.7	1.7
	Exhalation	160 l/min	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.3	2.3
Assessment	Pass																

A: facing directly ahead; B: facing vertically upwards; C: facing vertically downwards; D: lying on the left side; E: lying on the right side



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Clause 7.17 Clogging*

(EN 149:2001+A1:2009, Clause 8.9 & 8.10)

Test Requirement	Results	Comment																			
<p>Clause 7.17.2 Breathing resistance Valved particle filtering half masks: After clogging the inhalation resistances shall not exceed: FFP1: 4 mbar, FFP2: 5 mbar, FFP3: 7 mbar at 95L/min continuous flow The exhalation resistance shall not exceed 3 mbar at 160 L/min continuous flow.</p> <p>Valveless particle filtering half masks: After clogging the inhalation and exhalation resistances shall not exceed: FFP1: 3 mbar, FFP2: 4 mbar, FFP3: 5 mbar at 95L/min continuous flow</p>	Optional for single shift device only	N.A																			
<p>Clause 7.17.3 Penetration of filter material All types (valved and valveless) of particle filtering half masks claimed to meet the clogging requirement shall also meet the requirements.</p> <table border="1"> <thead> <tr> <th rowspan="3">Classification</th> <th colspan="2">Maximum penetration of test aerosol</th> </tr> <tr> <th>Sodium chloride test 95 l/min</th> <th>Paraffin oil test 95 l/min</th> </tr> <tr> <th>%</th> <th>%</th> </tr> </thead> <tbody> <tr> <td></td> <td>max.</td> <td>max.</td> </tr> <tr> <td>FFP1</td> <td>20</td> <td>20</td> </tr> <tr> <td>FFP2</td> <td>6</td> <td>6</td> </tr> <tr> <td>FFP3</td> <td>1</td> <td>1</td> </tr> </tbody> </table>	Classification	Maximum penetration of test aerosol		Sodium chloride test 95 l/min	Paraffin oil test 95 l/min	%	%		max.	max.	FFP1	20	20	FFP2	6	6	FFP3	1	1	Optional for single shift device only	N.A
Classification		Maximum penetration of test aerosol																			
		Sodium chloride test 95 l/min	Paraffin oil test 95 l/min																		
	%	%																			
	max.	max.																			
FFP1	20	20																			
FFP2	6	6																			
FFP3	1	1																			

Clause 7.18 Demountable Parts

(EN 149:2001+A1:2009, Clause 8.2)

Test Requirement	Results	Comment
All demountable parts (if fitted) shall be readily connected and secured, where possible by hand	Comply	Pass

Test	Uncertainty
Total inward leakage	2.98%
Penetration of filter material	1.00%
Flammability	1.00%
Carbon dioxide content of the inhalation air	0.93%
Breathing resistance	1.90%

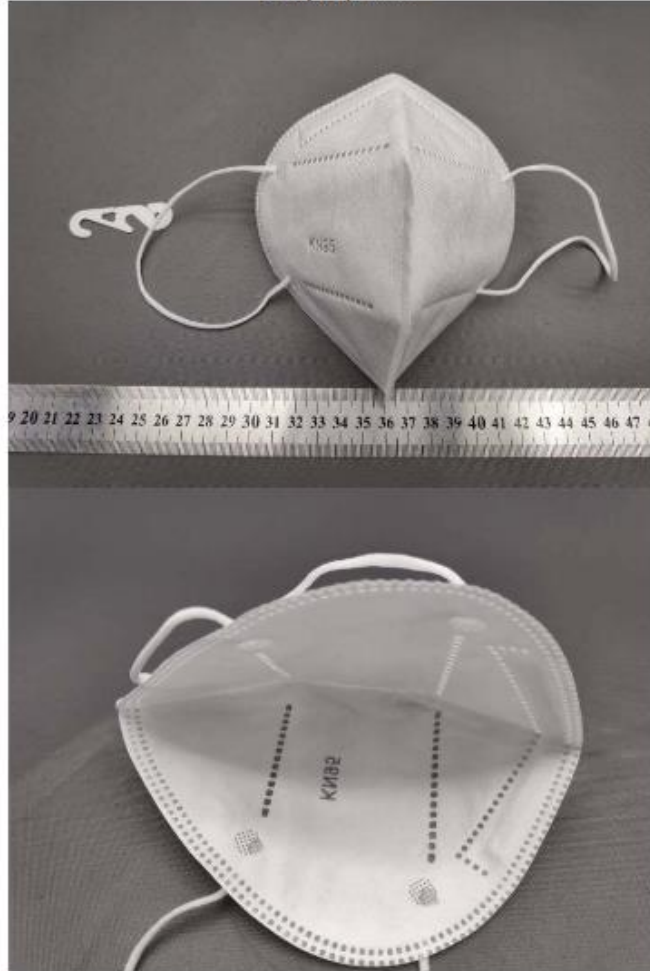
*:This test standard is carried out by external laboratory accredited by CNAS (China National Accreditation Service for Conformity Assessment) L10118.



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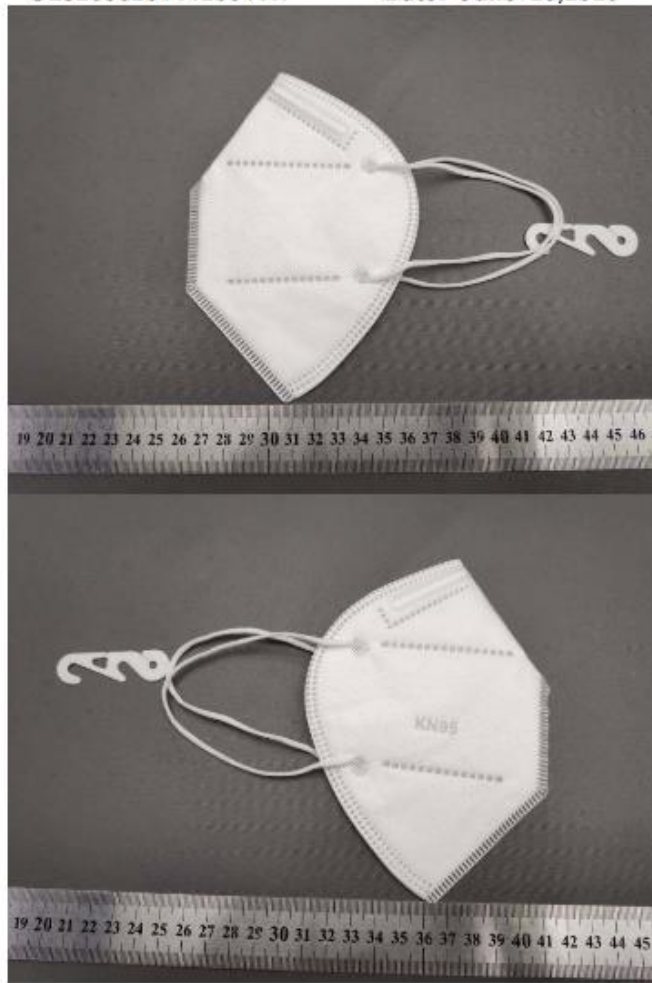
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