AC 114

# CERTYFIKAT BADANIA TYPU UE (MODUŁ B)
# *EU TYPE-EXAMINATION CERTIFICATE (MODULE B)*

Nr / *No.* CW/PPER/28/12/2020

**ZAŚWIADCZA SIĘ,**
że Polski Rejestr Statków S.A. (PRS) przeprowadził procedurę badania typu wymienionego niżej wyrobu i stwierdził jego zgodność z wymaganiami określonymi w załączniku V do Rozporządzenia Parlamentu Europejskiego i Rady (UE) 2016/425 (PPE) w sprawie środków ochrony indywidualnej oraz uchylenia dyrektywy Rady 89/686/EWG, ze zmianami.

***THIS IS TO CERTIFY***
*that Polski Rejestr Statków S.A. (PRS) did undertake the EU type-examination procedure for the product identified below which was found to be in compliance with the requirements of Annex V to the Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC, as amended.*

Wnioskodawca / *Applicant*
Baoding Yinhong Yuhe medical device manufacturing Co., Ltd.
Nanlongshan village, Dawangdian Industrial Park,
Xushui District, Baoding City, Hebei Province, China.

Producent / *Manufacturer*
Baoding Yinhong Yuhe medical device manufacturing Co., Ltd.
Nanlongshan village, Dawangdian Industrial Park,
Xushui District, Baoding City, Hebei Province, China.

Typ wyrobu / *Product type*
**Sprzęt ochrony układu oddechowego. Półmaski filtrujące do ochrony przed cząstkami.**
*Respiratory protective devices. Filtering half masks to protect against particles.*

Opis wyrobu / *Product description*
**Półmaska filtrująca, model: YH/9903 (klasa FFP3 NR).**
*Filtering half mask, Model: YH/9903 (class FFP3 NR).*

Zastosowane normy / *Specified standards*
PN-EN 149+A1:2010
*EN 149:2001+A1:2009*

Niniejszy certyfikat pozostaje ważny do czasu unieważnienia przy zachowaniu warunków uznania (patrz str. 2).
*This certificate remains valid unless cancelled or revoked, provided the approval conditions (see page 2) are complied with.*

Data ważności / *Expiry date* 2025-12-08

Zastępca Dyrektora Pionu Certyfikacji
*Certification Division Deputy Director*

Przemysław Gałka

Gdańsk, 2020-12-09

CE

Nr jednostki notyfikowanej
*No. of notified body*
**1463**

PRS 1936 NOTIFIED BODY NO.1463

Polski Rejestr Statków S.A.
al. Gen. Józefa Hallera 126
80-416 Gdańsk, Poland

tel. (+48) (58) 346 17 00
fax (+48) (58) 341 77 69
e-mail: dc@prs.pl
www: http://www.prs.pl/

Wykaz dokumentacji
*List of documents*

1. Instrukcja użytkowania - zatwierdzona przez PRS S.A. dnia 2020-12-03.
2. Ocena ryzyka - zatwierdzona przez PRS S.A. dnia 2020-12-03.
3. Dokumentacja techniczna „Półmaski filtrującej, model: YH/9903" - zatwierdzony przez PRS S.A. dnia 2020-12-03.
4. Raport z badań nr JKF20032192R1 wydany przez Zhejiang Academy of Science and Technology for Inspection & Quarantine (Technology Center of Hangzhou Customs District/Zhejiang Lead Product Technical Co., Ltd.) z akredytacją CNAS L0354 z dnia 2020-12-08.
5. Sprawozdanie z przeglądu PRS S.A. nr CW/MoK/PPER/277/2020 z dnia 2020-12-09.

*1. Instuction of use - approved by PRS S.A. on 2020-12-03.*
*2. Risk analysis - approved by PRS S.A. on 2020-12-03.*
*3. Technical documentation "Filtering half mask, Model: YH/9903" - approved by PRS S.A. on 2020-12-03.*
*4. Test report No. JKF20032192R1 issued by Zhejiang Academy of Science and Technology for Inspection & Quarantine (Technology Center of Hangzhou Customs District/Zhejiang Lead Product Technical Co., Ltd.) with CNAS accreditation no. L0354 dated on 2020-12-08.*
*5. PRS S.A. Survey Report No. CW/MoK/PPER/277/2020 dated on 2020-12-09.*

Miejsca produkcji
(inne niż podane na stronie 1)
*Places of production*
*(different than given on page 1)*

- - -

Ograniczenia uznania
*Approval limitations*

1. Dane techniczne:
   a) półmaska filtrująca z regulowanym klipsem na nos,
   b) klips na nos montowany wewnątrz półmaski filtrującej,
   c) półmaska filtrująca wykonana z 5 warstwowej włókniny z filtrem z tkaniny,
   d) półmaska filtrująca wyposażona w zauszniki,
   e) półmaska filtrująca bez zaworu,
   f) wymiary: 100 mm ± 2 mm x 153 mm ± 3 mm,
   g) docelowa grupa użytkowa: dorośli dla obu płci,
   h) kolory:

| półmaska filtrująca | zagłowie | klips na nos | zawór |
|---|---|---|---|
| biała | białe | n / d | n / d |

2. Półmaska filtrująca przeznaczona do jednorazowego użytku.
3. Dokumentacja techniczna zatwierdzona w języku angielskim.
4. Produkt ten nie może być stosowany jako maska przeciwgazowa w środowisku toksycznym.
5. Półmaska filtrująca nie powinna być używana w środowisku o stężeniu tlenu poniżej 19.5 %.
6. Półmaska filtrująca nie jest przeznaczona do użytkowania medycznego i chirurgicznego.

*1. Specifications:*
*a) filtering half mask with adjustable nose clip,*
*b) nose clip mounted inside the filtering half mask,*
*c) filtering half mask made with 5 layers non-woven fabric with melt-blown fabric filter,*
*d) filtering half mask with ear loops,*
*e) filtering half mask without valve,*
*f) size: 100 mm ± 2 mm x 153 mm ± 3 mm,*
*g) target group: unisex,*
*h) colors:*

| *filtering half mask* | *head harness* | *nose clip* | *valve* |
|---|---|---|---|
| *white* | *white* | *NA* | *NA* |

*2. Filtering half mask shall not be used for more than one shift.*
*3. Technical documentation approved in English.*
*4. This product can not be used as a gas mask in a toxic environment.*
*5. Filtering half mask should not be used in an environment with oxygen contens less then 19.5%.*
*6. Filtering half mask can not be used for medical and surgical purposes.*

**Warunki uznania**
***Approval conditions***

**1** Niniejszy certyfikat straci ważność po wprowadzeniu zmian lub modyfikacji w wyrobie bez uprzedniego uzgodnienia z PRS.
*This certificate becomes invalid after changes or modifications to the product without prior agreement with PRS.*

**2** Znak zgodności może być umieszczony na uznanym wyrobie oraz może być wystawiona deklaracja zgodności tylko pod warunkiem, że łącznie z badaniem typu UE zostanie przeprowadzona ocena zgodności produkcji pod nadzorem jednostki notyfikowanej, według załącznika VII lub VIII wymienionego wyżej rozporządzenia.
*The Mark of Conformity may only be affixed to the above type approved product and a manufacturer's Declaration of Conformity issued provided the production is assessed under surveillance of a notified body according to Annex VII or VIII of the a/m Regulation.*

AC 114

# CERTYFIKAT ZGODNOŚCI Z TYPEM W OPARCIU O WEWNĘTRZNĄ KONTROLĘ PRODUKCJI ORAZ NADZOROWANE KONTROLE PRODUKTU W LOSOWYCH ODSTĘPACH CZASU (Moduł C2)

# *CONFORMITY TO TYPE CERTIFICATE BASED ON INTERNAL PRODUCTION CONTROL PLUS SUPERVISED PRODUCT CHECKS AT RANDOM INTERVALS (Module C2)*

Nr / *No.* CW/PPER/66/12/2020

Okres objęty certyfikatem / *Period covered by the certificate* 2020-12-19 – 2021-12-18

Dokumenty odniesienia: / *General reference documents:* Rozporządzenie UE 2016/425 dotyczące środków ochrony indywidualnej (PPE), załacznik VII / *Regulation (EU) 2016/425 on personal protective equipment (PPE), Annex VII*

Posiadacz certyfikatu / *Certificate holder*

**Baoding Yinhong Yuhe medical device manufacturing Co., Ltd.**
Nanlongshan village, Dawangdian Industrial Park,
Xushui District, Baoding City, Hebei Province, China.

| Wyrób / *Product* | Certyfikat badania typu UE / *EU Type-examination certificate* | Normy zharmonizowane/Specyfikacje / *Harmonised standards/Specifications* |
|---|---|---|
| **Półmaska filtrująca, model: YH/9903 (klasa FFP3 NR).**<br>*Filtering half mask, Model: YH/9903 (class FFP3 NR).* | CW/PPER/28/12/2020 | PN-EN 149+A1:2010<br>*EN 149:2001+A1:2009* |

**A** **Roczna ocena zgodności wyrobów z normą/specyfikacją i badanym typem**
***Annual assessment of products compliance with standard/specification and type-examined***

1 Miejsca i daty wizyt / *Visit locations and dates*: Baoding Yinhong Yuhe medical device manufacturing Co., Ltd.

2a Wyboru dokonał (imię, nazwisko) / *Selection carried out by (Name)*: Mirosław Klimek

Związek z jednostką notyfikowaną / *Relationship to notified body*: Ekspert Biura Certyfikacji Wyrobów i Osób / *Products and Persons Certification Bureau Expert*

2b Przedstawiciel firmy (imię, nazwisko) / *Company representative (Name)*: Liu Henghao

Stanowisko / *Position*: -

3 Związek pomiędzy wizytowaną firmą a posiadaczem certyfikatu badania typu UE
*Relationship of company visited to EU type-examination certificate holder*

☐ Posiadacz certyfikatu / *Certificate holder* ☒ Miejsce produkcji / *Production site* ☐ Inne miejsce produkcji / *Secondary production site* ☐ Importer / *Importer* ☐ Dystrybutor / *Distributor*

☐ Sprzedaż detaliczna / *Retail outlet* ☐ Europejskie biuro firmy / *European office of the company* ☐ Inny: / *Other:*

Wykaz środków ochrony indywidualnej / *List of personal protection equipment* ☒ Dostępny / *Available* ☐ Niedostępny / *Not available*

Wybór próbki / *Sample selection* ☒ Wybrano – Nr egz./partii: / *Selected – lot/batch No.* YH/9903/2020/11/3 ☐ Nie wybrano / *Not selected*

4 Wybór próbki / *Sample selection* ☒ Prawidłowy / *Correct* ☐ Nieprawidłowy / *Incorrect* Wyniki badań / *Result of tests* ☒ Pozytywne / *Positive* ☐ Negatywne / *Negative*

5 Wybór próbki i badania wykazały zgodność z przywołanymi normami/specyfikacjami i badanym typem / *Sample selection and testing demonstrated compliance with the reference standards/specifications and type-examined* ☒ Tak / *Yes* ☐ Nie / *No*

CE

Nr jednostki notyfikowanej / *No. of notified body*

**1463**

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**B** **Roczna ocena niejednorodności produkcji**
***Annual assessment of production non-homogeneity***

**1** Zastosowana metoda przy dokonaniu oceny
*Method employed to perform assessment*

☐ Inspekcja procesu produkcyjnego i zapisów z prób
*On-site review of production and test records*

☐ Audit kontroli procesu produkcyjnego
*On-site audit of production control*

☐ Ocena niejednorodności produkcji poprzez ocenę jednej dużej próbki
*Production non-homogeneity assessed by selection of a single, large sample*

☐ Ocena niejednorodności produkcji poprzez ocenę próbek w ciągu roku
*Production non-homogeneity assessed by assessment of samples throughout the year*

**2a** Ocenę przeprowadził (imię, nazwisko) ----
*Assessment carried out by (Name)*
Związek z jednostką notyfikowaną ----
*Relationship to notified body*

**2b** Przedstawiciel firmy (imię, nazwisko) ----
*Company representative (Name)*
Stanowisko ----
*Position*

**3** Na podstawie przeprowadzonej oceny stwierdzono, że proces produkcyjny jest jednorodny ☐ Tak *Yes* ☐ Nie *No*
*On the basis of the assessment, it has been concluded the production is homogeneous*

**C** **Podsumowanie**
***Conclusion***

Uzasadnienie niezgodności
*Justification of non-conformities*

Nie było żadnych niezgodności / There were no non-conformities.

Wnioski jednostki notyfikowanej
*Conclusions of notified body*

Środek ochrony osobistej jest kompatybilny z typem określonym w certyfikacie badania typu UE.
*Personal protective equipment is compatible with the type defined in the EC type-examination certificate.*

Uwagi
*Remarks*

1. Półmaska filtrująca przeznaczone do jednorazowego użytku.
2. Dokumentacja techniczna zatwierdzona w języku angielskim.
3. Produkt ten nie może być stosowany jako maska przeciwgazowa w środowisku toksycznym.
4. Półmaska filtrująca nie jest przeznaczona do użytkowania medycznego i chirurgicznego.
5. Półmaska filtrująca nie powinna być używana w środowisku o stężeniu tlenu poniżej 19.5 %.

*1. Filtering half mask shall not be used for more than one shift.*
*2. Technical documentation approved in English.*
*3. This product can not be used as a gas mask in a toxic environment.*
*4. Filtering half mask can not be used for medical and surgical purposes.*
*5. Filtering half mask should not be used in an environment with oxygen contens less then 19.5%.*

**D** **Załączniki**
***Attachments***

Sprawozdania z wizyty Nr
*Visit reports No.*
CW/MoK/PPER/304/2020 z dnia/*dated on* 2020-12-19.

Sprawozdania z badań Nr
*Test reports No.*
Raport z badań nr CL/WBO/152/2020 wydany przez Laboratorium Badawcze PRS S.A. w dniu 2020-12-19.
*Test report no. CL/WBO/152/2020 issue by PRS. S.A. Testing Laboratory dated on 2020-12-19.*

**Ogólna ocena z rocznego nadzoru**
***Overall assessment of the annual surveillance***

☒ Pozytywna *Positive* ☐ Negatywna *Negative*

PRS 1936 NOTIFIED BODY NO.1463

Zastępca Dyrektora Pionu Certyfikacji
*Certification Division Deputy Director*

Przemysław Gałka

Gdańsk, 2020-12-19

# TEST REPORT

**Report No.：JKF20032192R1**

**Applicant ： Baoding Yinhong Yuhe medical device manufacturing Co., Ltd**

**Zhejiang Academy of Science and Technology for Inspection and Quarantine**

Add: No. 398, Jianshe 3 Road, Xiaoshan District, Hangzhou, Zhejiang, China

Tel: +86 0571 8352 7187/185/193 Website: www.zaiq.org.cn

Report No.：JKF20032192R1
Report date：2020-12-08

| | | | | |
|---|---|---|---|---|
| **The information are provided by client(applicant):** | | | | |
| Sample Information | Sample Name： | filtering half mask | | |
| | Style No.： | YH/9903 | | |
| | Brand： | YINHONYUHE | | |
| Customer Information | Applicant： | Baoding Yinhong Yuhe medical device manufacturing Co., Ltd | | |
| | Address： | Nanlongshan village, Dawangdian Industrial Park, Xushui District, Baoding City, Hebei Province, China | | |
| | Manufacturer： | Baoding Yinhong Yuhe medical device manufacturing Co., Ltd | | |
| | Manufacturer address： | Nanlongshan village, Dawangdian Industrial Park, Xushui District, Baoding City, Hebei Province, China | | |
| **The information are confirmed by testing organization:** | | | | |
| Test Information | Date of sample received: | 2020-11-24 | Testing period： | 2020-11-24 to 2020-12-07 |
| | Quantity： | 70 Pieces | | |
| | Sample description： | White mask | | |
| | Basis of judgment： | EN 149:2001+A1:2009 FFP3 NR<br>Respiratory protective devices—Filtering half masks to protect against particles —Requirements, testing, marking | | |
| Test Conclusion | The items tested meet the requirements of EN 149:2001+A1:2009 FFP3 NR | | | |
| Test Result | Please refer to next pages. | | | |
| Remark | This report (which has modified Sample photo) is to replace the original report (report number JKF20032192 issued on 2020-12-07), the original report also void. | | | |

Edit：Ye yiwen

Sign：Zhao dong

***** End of this page*****

Report No.：JKF20032192R1
Report date：2020-12-08

# Test Results:

**Clause 7.5 Material**

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

| Requirement | Results | Rating |
|---|---|---|
| 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.<br>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.<br>When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.<br>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 | Pass |

**Clause 7.6 Cleaning and disinfecting**

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

| Requirement | Results | Rating |
|---|---|---|
| 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.<br>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）

| Requirement | Results | Rating |
|---|---|---|
| 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）

| Requirement | Results | Rating |
|---|---|---|
| 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 |

Report No.：JKF20032192R1
Report date：2020-12-08

**Clause 7.9.1 Total inward leakage**

（EN 149:2001+A1:2009 Clause 8.5）

| Requirement | Results | Rating |
|---|---|---|
| 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:<br>25% for FFP1, 11% for FFP2, 5% for FFP3<br>and, in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than:<br>22% for FFP1, 8% for FFP2, 2% for FFP3 | 50 out of the 50 individual exercise≤5%<br>8 out of the 10 individual wearer arithmetic means ≤2% | Pass |

Table 7.9.1-A Inward leakage test data

| Subject | Sample No. | Condition | Walk (%) | Head side/side (%) | Head up/down (%) | Talk (%) | Walk (%) | Mean (%) |
|---|---|---|---|---|---|---|---|---|
| CQQ | 1 | As received | 1.778 | 1.731 | 1.795 | 2.909 | 1.855 | 2.013 |
| WLJ | 2 | | 1.785 | 1.778 | 1.806 | 2.867 | 1.874 | 2.022 |
| WG | 3 | | 1.695 | 1.782 | 1.792 | 2.718 | 1.858 | 1.969 |
| ZJH | 4 | | 1.673 | 1.727 | 1.740 | 2.627 | 1.816 | 1.916 |
| TLB | 5 | | 1.762 | 1.679 | 1.696 | 2.528 | 1.780 | 1.889 |
| ZMY | 6 | Temperature conditioned | 1.801 | 1.671 | 1.712 | 2.454 | 1.773 | 1.882 |
| LJF | 7 | | 1.722 | 1.678 | 1.742 | 2.847 | 1.793 | 1.956 |
| HML | 8 | | 1.627 | 1.677 | 1.700 | 2.651 | 1.699 | 1.871 |
| RK | 9 | | 1.605 | 1.810 | 1.736 | 2.457 | 1.802 | 1.882 |
| ZD | 10 | | 1.677 | 1.692 | 1.765 | 2.688 | 1.825 | 1.929 |

Table 7.9.1-B Facial dimensions

| Subject | Face Length (mm) | Face Width (mm) | Face Depth (mm) | Mouth Width (mm) |
|---|---|---|---|---|
| CQQ | 136 | 167 | 125 | 65 |
| WLJ | 132 | 159 | 110 | 60 |
| WG | 120 | 152 | 109 | 57 |
| ZJH | 122 | 150 | 104 | 50 |
| TLB | 125 | 152 | 111 | 57 |
| ZMY | 137 | 150 | 120 | 60 |
| LJF | 125 | 135 | 90 | 55 |
| HML | 124 | 130 | 115 | 55 |
| RK | 112 | 161 | 146 | 50 |
| ZD | 116 | 160 | 115 | 55 |

Report No.：JKF20032192R1
Report date：2020-12-08

**Clause 7.9.2 Penetration of filter material**

（EN 149:2001+A1:2009 Clause 8.11 & EN 13274-7:2019）

| Requirement | Results | Rating |
|---|---|---|
| The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table. | Detail refer to Table 7.9.2 | Pass |

| Classification | Sodium chloride test 95 L/min | Paraffin oil test 95 L/min |
|---|---|---|
| FFP1 | ≤20% | ≤20% |
| FFP2 | ≤6% | ≤6% |
| FFP3 | ≤1% | ≤1% |

Table 7.9.2 Penetration of filter material

| Aerosol | Condition | Sample No. | Penetration (%) |
|---|---|---|---|
| Sodium chloride test | As received | 11 | 0.005 |
| | | 12 | 0.007 |
| | | 13 | 0.006 |
| | Simulated wearing treatment | 14 | 0.007 |
| | | 15 | 0.004 |
| | | 16 | 0.005 |
| | Mechanical strength+ Temperature conditioned | 17 | 0.012 |
| | | 18 | 0.017 |
| | | 19 | 0.020 |
| Paraffin oil test | As received | 20 | 0.033 |
| | | 21 | 0.025 |
| | | 22 | 0.024 |
| | Simulated wearing treatment | 23 | 0.013 |
| | | 24 | 0.019 |
| | | 25 | 0.022 |
| | Mechanical strength+ Temperature conditioned | 26 | 0.630 |
| | | 27 | 0.527 |
| | | 28 | 0.593 |
| Flow conditioning: single filter: 95.0 L/min | | | |

**Clause 7.10 Compatibility with skin**

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

| Requirement | Results | Rating |
|---|---|---|
| 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）

| Requirement | Results | Rating |
|---|---|---|
| When tested, the particle filtering half mask shall not burn or not to continue to burn for more than 5s after removal from the flame. | Detail refer to Table 7.11 | Pass |

Table 7.11 Flammability

| Condition | Sample No. | Result |
|---|---|---|
| As received | 29 | Not burn |
| | 30 | Not burn |
| Temperature conditioned | 31 | Not burn |
| | 32 | Not burn |

**Clause 7.12 Carbon dioxide content of the inhalation air**

（EN 149:2001+A1:2009 Clause 8.7）

| Requirement | Results | Rating |
|---|---|---|
| The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0 % (by volume). | Detail refer to Table 7.12 | Pass |

Table 7.12 Carbon dioxide content of the inhalation air

| Condition | Sample No. | Result (%) | |
|---|---|---|---|
| As received | 33 | 0.69 | Mean value: 0.69 |
| | 34 | 0.69 | |
| | 35 | 0.70 | |

**Clause 7.13 Head harness**

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

| Requirement | Results | Rating |
|---|---|---|
| The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.<br>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 | Pass |

**Clause 7.14 Field of vision**

（EN 149:2001+A1:2009 Clause 8.4）

| Requirement | Results | Rating |
|---|---|---|
| The field of vision is acceptable if determined so in practical performance tests. | Comply | Pass |

**Clause 7.15 Exhalation valve**

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

| Requirement | Results | Rating |
|---|---|---|
| A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.<br>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.<br>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.<br>When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s. | Not applicable (No exhalation valve) | N/A |

**Clause 7.16 Breathing resistance**

（EN 149:2001+A1:2009 Clause 8.9

| Requirement | Results | Rating |
|---|---|---|
| The penetration of the filter of the particle filtering half mask shall meet the requirements of the following table. | Detail refer to Table 7.16 | Pass |

| Classification | Maximum permitted resistance (mbar) | | |
|---|---|---|---|
| | Inhalation | | Exhalation |
| | 30L/min | 95L/min | 160L/min |
| FFP1 | 0.6 | 2.1 | 3.0 |
| FFP2 | 0.7 | 2.4 | 3.0 |
| FFP3 | 1.0 | 3.0 | 3.0 |

Table 7.16 Breathing resistance (mbar)

| Test item | Condition | Sample No. | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| Inhalation (30 L/min) | As received | 36 | 0.50 | 0.51 | 0.51 | 0.51 | 0.50 |
| | | 37 | 0.49 | 0.50 | 0.50 | 0.49 | 0.49 |
| | | 38 | 0.49 | 0.50 | 0.49 | 0.50 | 0.50 |
| | Simulated wearing treatment | 39 | 0.51 | 0.51 | 0.50 | 0.51 | 0.51 |
| | | 40 | 0.51 | 0.52 | 0.51 | 0.52 | 0.52 |
| | | 41 | 0.50 | 0.51 | 0.51 | 0.51 | 0.50 |
| | Temperature conditioned | 42 | 0.45 | 0.46 | 0.46 | 0.45 | 0.45 |
| | | 43 | 0.44 | 0.45 | 0.45 | 0.45 | 0.44 |
| | | 44 | 0.47 | 0.46 | 0.47 | 0.46 | 0.46 |

Report No.：JKF20032192R1
Report date：2020-12-08

| Test item | Condition | Sample No. | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| Inhalation (95 L/min) | As received | 36 | 1.87 | 1.88 | 1.87 | 1.86 | 1.88 |
| | | 37 | 1.85 | 1.86 | 1.87 | 1.85 | 1.85 |
| | | 38 | 1.84 | 1.86 | 1.85 | 1.86 | 1.85 |
| | Simulated wearing treatment | 39 | 1.89 | 1.88 | 1.87 | 1.89 | 1.89 |
| | | 40 | 1.90 | 1.91 | 1.92 | 1.94 | 1.92 |
| | | 41 | 1.90 | 1.88 | 1.89 | 1.89 | 1.88 |
| | Temperature conditioned | 42 | 1.79 | 1.77 | 1.79 | 1.77 | 1.77 |
| | | 43 | 1.76 | 1.74 | 1.74 | 1.75 | 1.74 |
| | | 44 | 1.81 | 1.80 | 1.82 | 1.83 | 1.81 |
| Exhalation (160 L/min) | As received | 36 | 2.65 | 2.64 | 2.66 | 2.65 | 2.65 |
| | | 37 | 2.64 | 2.62 | 2.64 | 2.63 | 2.64 |
| | | 38 | 2.63 | 2.64 | 2.65 | 2.63 | 2.63 |
| | Simulated wearing treatment | 39 | 2.67 | 2.65 | 2.66 | 2.67 | 2.67 |
| | | 40 | 2.69 | 2.70 | 2.69 | 2.67 | 2.68 |
| | | 41 | 2.68 | 2.66 | 2.67 | 2.65 | 2.66 |
| | Temperature conditioned | 42 | 2.48 | 2.45 | 2.47 | 2.47 | 2.45 |
| | | 43 | 2.45 | 2.47 | 2.46 | 2.45 | 2.46 |
| | | 44 | 2.49 | 2.51 | 2.50 | 2.51 | 2.49 |

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

**Clause 7.17 Clogging**

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

| Requirement | Results | Rating |
|---|---|---|
| **7.17.2Breathing resistance:**<br>**7.17.2.1 Valved particle filtering half masks**<br>After clogging the inhalation resistances shall not exceed FFP1:4mbar, FFP2:5mbar, FFP3:7mbar at 95 L/min continuous flow; The exhalation resistance shall not exceed 3mbar at 160 L/min continuous flow.<br>**7.17.2.2 Valveless particle filtering half masks**<br>After clogging the inhalation and exhalation resistances shall not exceed FFP1:3mbar, FFP2:4mbar, FFP3:5mbar at 95 L/min continuous flow.<br>**7.17.3Penetration of filter material:**<br>All types (valved and valveless) of particle filtering half masks claimed to meet the clogging requirement shall also meet the requirements given in 7.9.2, for the Penetration test according to EN 13274-7, after the clogging treatment. | Optional for single shift device only | Not required |

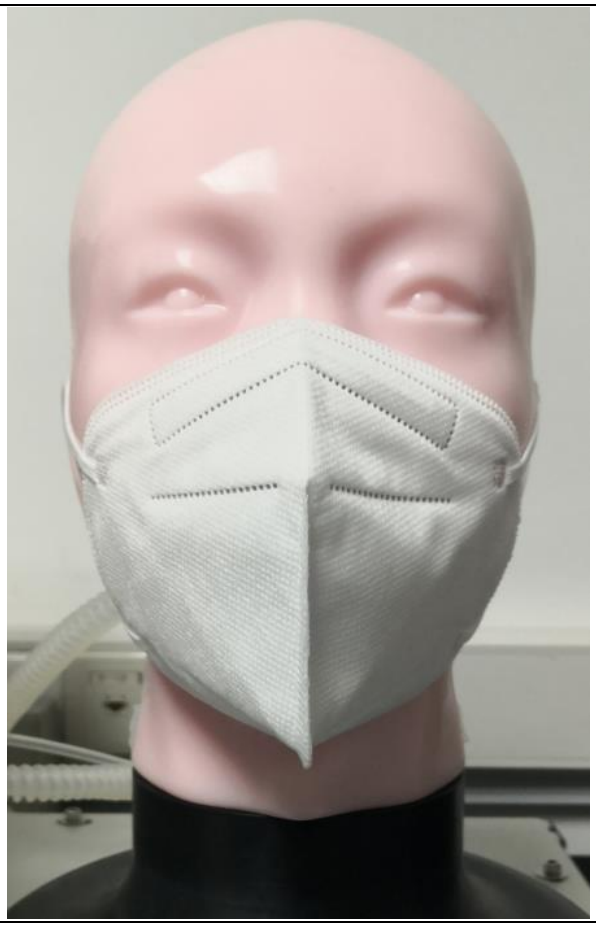
**Clause 7.18 Demountable parts**

（EN 149:2001+A1:2009 Clause 8.2）

| Requirement | Results | Rating |
|---|---|---|
| All demountable parts (if fitted) shall be readily connected and secured, where possible by hand. | Comply | Pass |

Report No.：JKF20032192R1
Report date：2020-12-08

# Sample photo



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

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