

# FFP2 Mask Product Introduction

Model: **DOC-NFW**



High Efficiency  
Filtration



Strict  
Protection



3D Design

# Technical Parameters



Technical Parameters 技术参数			
型号 Model	DOC-NFW	产品主材/Mask Materials	
级别 Level	FFP2	一层(外层) 1st-layer (Outermost)	75g 无纺布 Non-woven fabric
口罩尺寸 Mask Size	20cm*8cm	二层 2nd-layer	25g 熔喷布 Melt spray cloth
重量 Weight	5g	三层 3rd-layer	25g 熔喷布 Melt spray cloth
佩戴方式 Wearing Method	耳带 Ear-Loop	四层 4th-layer	30g 无纺布 Non-woven fabric
耳线长度 Ear Cord Length	18cm	五层 5th-layer	/
形状 Shape	鱼型 Fish-Type	呼气阀 Exhalation valve	/
配件 Accessories		挂钩 hook up	

# Packaging Information



# Instruction



## Information of Manufacturer

Manufacturer: NEOLITHIC TECH CO.,LTD.  
Address: Building 1, No.13, Shinan Road, Nansha District, Guangzhou  
Tel: +86 20 84557556  
Email: mask@neolithage.com Website: www.neolithage.com

The EU declaration of conformity accompany with product.  
EU- Type Examination Notified Body  
Notified Body: AENOR INTERNACIONAL S.A.U.  
Address: Génova, 6. 28004 Madrid. Spain  
Notified Body No.: 0099

Quality Assurance of the Production Process Notified Body  
Notified Body: SGS Fimko Oy  
Address: Takomitie 8, FI-00380 Helsinki, Finland  
Notified Body No.: 0598

Please read this User Information Sheet carefully before using this product. This product complies with the requirements of EU Regulation (EU) 2016/425 for Personal Protective Equipment and meets the requirements of European standard EN149:2001+A1:2009.

## Check before use

The mask must be selected properly for intended application. An individual risk assessment must be evaluated. Check the mask that it is undamaged with no visible defects. Check that the expiry date has not been reached (see the packaging). Check the protection class (FFP1 NR/ FFP2 NR/ FFP3 NR) is appropriate for the product used and its concentration. Do not use the mask if a defect is present or the expiry date has been exceeded. This product is designed to protective against the risks:  
These devices are designed to protect against both solid and liquid aerosols.

Risk	Standard Clause	Assessment method
Penetration of particle	EN 149:2001+A1:2009, clause 7.9.1 and 7.9.2	Total inward leakage test, Penetration of filter material

## Easy to Use

1. Unfold the mask.
2. Position the mask under the chin covering mouth and nose.
3. Adjust the harness to make it comfortable
4. Press soft nosepiece to conform snugly around the nose.
5. To check fit, both hands over the mask and exhale vigorously. If air flows around nose, tighten the nosepiece. If air leaks around the edge, reposition the harness for better fit. Re-check the seal and repeat the procedure until the mask is sealed properly.



## Usage/ Limitations

This respirator is suitable for use in protection against the non-toxic solid and liquid aerosols. Do not use out of the scope of use defined in the warnings.  
**FFP1 NR:** Filter Efficiency 80%; Examples of applications are Handling of stone / rubble / cellulose.





## DOC-NFW

**FFP2 NR:** Filter Efficiency 94%; Examples of applications are Sanding of soft wood, composite materials, rust, putty, plaster, plastics / cutting, deburring, grinding, drilling of metal.  
**FFP3 NR:** Filter Efficiency 99%; Examples of applications are Sanding of hard wood (beech, oak) / treatment of wood using copper, chrome or arsenic based products / impact stripping of paint / sanding of cement.

## Warnings

1. Failure to follow all instructions and limitations on the use of this product, or failure to achieve proper fit, may result in damage to your health.
2. A properly selected respirator is essential to protect your health. Before using this respirator consult a suitably qualified safety professional to determine the suitability of the product for your intended use.
3. This product does not supply oxygen. Use only in adequately ventilated areas containing sufficient oxygen to support life. Do not use this respirator when the oxygen concentration is less than 19.5%.
4. Do not use when concentrations of contaminants are immediately dangerous to health or life. Do not use this product in an explosive atmosphere.
5. Leave the work area immediately if: a) breathing becomes difficult or b) dizziness or other distress occurs.
6. Facial hair, beards and certain facial characteristics may reduce the effectiveness of this respirator.
7. Never alter or modify this respirator in any way (except as indicated in the instructions).
8. "NR" means this filtering half mask shall not be used for more than one shift. No maintenance is necessary. Discard respirator after use or if damaged in any way.
9. The length of time this respirator can be used depends on contaminants present but should not exceed one shift. The respirator should be replaced sooner if breathing becomes difficult.
10. Keep respirators in the display box away from direct sunlight or contaminants until use. Ambient storage conditions as temperature between -30°C to +70°C, and relative humidity <80%.
11. Unless this is fitted according to the "Easy to use" instructions the respirator will not provide the expected level of protection.
12. This respirator is suitable for use in protection against the non-toxic solid and liquid aerosols.
13. Failure to achieve proper fit may result in serious health damage.
14. The respirators must be stored and transported in their original package and protected by the storage temperature and humidity as suggested by the manufacturer.

## Marking

Marking on Product	Description on label	Explanation	
 DOC-NFW FFP2 NR EN149:2001+A1:2009  0598	 DOC-NFW	Identification Mark Product Identification	
	 0598	EN149:2001+ A1:2009	CE mark Number of European Standard
	FFP2 NR		Protection Category

  
 2 years after manufacture date  
 (on packaging)

 -30°C to +70°C  
 <80%  
 Recommended  
 Conditions of Storage

# EU DECLARATION OF CONFORMITY

NEOLITHIC TECH CO.,LTD.

## EU DECLARATION OF CONFORMITY

We Manufacturer: NEOLITHIC TECH CO.,LTD.

Address: Room 108, Building 1, No.13, Shinan Road, Nansha District, Guangzhou, China

Declare that the product detailed below:

Filtering half mask  
Model: DOC-NFW  
Class: FFP2 NR  
Trademark:



Satisfies the requirement of the Council Directives:

2016/425/EU

Essential health and safety requirements Guaranteed

and conforms with the norms: EN 149: 2001+A1: 2009

Module B

NOTIFIED BODY: AENOR INTERNACIONAL

NUMBER: 0099

Manufacturing plant surveillance through Module D:

NOTIFIED BODY: SGS FIMKO OY

NUMBER: 0598

Signed for and on behalf of: NEOLITHIC TECH CO.,LTD.

Place and date of issue:

Room 108, Building 1, No.13, Shinan Road, Nansha District, Guangzhou, China

2020/08/04

Name: Li Jun

Function: General Manager

Signature:



# Moudle B+Moudle D

## AENOR

### Certificado de Examen UE de Tipo EU Type-Examination Certificate

**A18/000044**

AENOR, como organismo notificado (nº 0209) para el Reglamento (UE) 2016/425, ha emitido este certificado a favor de la compliance with Regulation (EU) 2016/425, the notified body AENOR (nº 0209) has issued this certificate to

**NEOLITHIC TECH CO., LTD.**

Domicilio social / Registered office para el producto / for the product: **Building 1, No. 13, Shinan Road Nansha District, Guangzhou (China)**

conforme con el Reglamento / in compliance with Regulation: **Dispositivos de protección respiratoria. Medias máscaras filtrantes de protección contra partículas. / Respiratory protection devices. Half filter masks to protect against particles.**

Norma armonizada / Harmonized standard: **Reglamento UE 2016/425 de Equipos de Protección Individual (Regulation EU 2016/425 on Personal Protective Equipment)**

Centro de producción / Production site: **EN 149:2001+A1:2009**

Esquema de evaluación / Assessment scheme: **Más información en el anexo / See annex for more information.**

Fecha de emisión / First issued on: **Building 1, No. 13, Shinan Road Nansha District, Guangzhou (China)**

Fecha de expiración / Validity date: **Anexo V (Examen UE de Tipo – Módulo B) del Reglamento (UE) 2016/425.**

**Rafael GARCÍA MEIRO**  
 Director General / CEO

**AENOR INFORMACIÓN S.A.B**  
 Génova 6, 28004-Madrid, España  
 Tel. 91 432 60 00 - www.aenor.com

Organismo de control acreditado por ENAC con acreditación Nº 1.C. PR354  
 Control body accredited by ENAC. Accreditation number 1.C.PR354

## AENOR

### Certificado de Examen UE de Tipo EU Type-Examination Certificate

**A18/000044**

**Anexo al Certificado  
Annex to Certificate**

Norma armonizada / Harmonized standard: **EN 149:2001+A1:2009**

Marca Comercial / Trade Mark	Referencia / Reference	Clasificación / Classification	Descripción / Description
DOC	DOC-NFW	FFP2-NR	MEDIA MASCARILLA DE CUATRO CAPAS DE FILTRADO, DOS LAZOS FIJOS DE SUJECCION A OREJAS, DE TIPO PLEGABLE. DISEÑADA PARA PROTEGER CONTRA PARTICULAS SOLIDAS O LIQUIDAS SUSPENDIDAS EN EL AIRE. NO REUTILIZABLE / FILTERING HALF MASK, FOUR FILTERING LAYERS, TWO EARLOOPS, FOLDING STYLE. DESIGNED TO PROTECT AGAINST AIRBORNE SOLID OR LIQUID PARTICLES. NON-REUSABLE

Fecha de emisión / First issued on: **2020-06-29**  
 Fecha de expiración / Validity date: **2025-06-29**

**AENOR INFORMACIÓN S.A.B**  
 Génova 6, 28004-Madrid, España  
 Tel. 91 432 60 00 - www.aenor.com

Organismo de control acreditado por ENAC con acreditación Nº 1.C. PR354  
 Control body accredited by ENAC. Accreditation number 1.C.PR354

Certificate CN2042172

The management system of

**NEOLITHIC TECH CO., LTD.**

Building 1, No. 13, Shinan Road, Nansha District, Guangzhou, Guangdong Province, 511400, P.R. China

has been assessed and certified as meeting the requirements of

**Regulation (EU) 2016/425**

Module D

For the following activities

**Manufacture of FFP1/FFP2/FFP3 Protective Respirators**  
 (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 the PPE Directive 89/686/EEC.)

This certificate is valid from 4 August 2020 until 3 August 2023 and remains valid subject to satisfactory surveillance audits. Re certification audit due before 24 July 2023 Issue 1. Certified since 4 August 2020

Authorised by  
  
**Tom Tam**  
 SGS FIMKO OY, Notified Body 0598  
 Taittonenkatu 8, FI-02030 Helsinki, Finland  
 +3589 699 301 / +3589 692 5474 - www.sgs.com

**FINAS**  
 Finnish Accreditation Service  
 8903 (EN ISO/IEC 17065)




Page 1 of 1

This document is issued by the Competent Authority for the General Conditions of Certification. Services provided by management systems and product certification are not subject to the provisions of the PPE Directive. The validity of this document is in force until the next surveillance audit. Any amendment, deletion, suspension or expiration of this document is published on the website www.sgs.com.

06

# Test Report

Report No.: [2020] WSZ FHL NO.5310

## Test Report

Report No.: [2020] WSZ FHL NO.5310

Product Name Filtering half mask

Applicant NEOLITHIC TECH CO.,LTD.

Manufacturer NEOLITHIC TECH CO.,LTD.

Test Type Entrusted inspection

Jiangsu Guojian Testing Technology Co., Ltd.  
3/F, Unit D, Xinye Building, Taihu International Tech-Park, Wuxi, Jiangsu, China  
检验检测专用章

Page 1 of 11

Report No.: [2020] WSZ FHL NO.5310

## Test Report

Product name	Filtering half mask	Model name	DOC-NFW
		Brand	DOC
Laboratory/ Add.	Jiangsu Guojian Testing Technology Co., Ltd./ 3/F, Unit D, Xinye Building, Taihu International Tech-Park, Wuxi, Jiangsu, China		
Applicant/ Add/Tel	NEOLITHIC TECH CO.,LTD./Room 108, Building 1, No. 13, Shiman Road, Nansha District, Guangzhou, China/1928769666		
Manufacturer/ Add/Tel	NEOLITHIC TECH CO.,LTD./Room 108, Building 1, No. 13, Shiman Road, Nansha District, Guangzhou, China/1928769666		
Sample classification	FFP2	Sample number	GW5310-2020
Sample quantity	110 pcs	Date of receipt of sample	08/05/2020
Test type	Entrusted inspection	Article/Batch/Style number	DOC-NFW
Date (s) of performance of tests	10/05/2020-22/05/2020	Testing location	Same as the Laboratory
Sample state	Meeting the requirements of testing	Sample description	Refer to page 3
Test standard(s)	EN 149:2001+A1:2009 Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking		
Test items	Packaging, material, practical performance, finish of parts, compatibility with skin, flammability, carbon dioxide content of the insulation air, head harness, field of vision, penetration of filter material, breathing resistance, total inward leakage		
Test conclusion	The samples upon testing comply with FFP2 classification requirements according to the standard EN 149:2001+A1:2009. The details of test results are on pages 2-11.		
Note	The test results presented in this report relate only to the submitted sample as received.		

Date of issue: 12/08/2020  
检验检测专用章

Lu Bing 陆兵  
Approver (name, signature)

Wan Hong 万红  
Reviewer (name, signature)

Yang Yina 杨艺  
Chief Tester (name, signature)

Page 2 of 11

Test Report Form No. EN149\_C  
Dated 2020-05

Report No.: [2020] WSZ FHL NO.5310

Sample description:	DOC-NFW
Test item particulars:	
Type of use .....	<input type="checkbox"/> re-usable particle filtering half mask <input checked="" type="checkbox"/> single shift only particle filtering half mask
Classes of devices.....	<input type="checkbox"/> FFP1 <input checked="" type="checkbox"/> FFP2 <input type="checkbox"/> FFP3
Exhalation valve(s).....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Inhalation valve(s).....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Designed to protect against both solid & liquid aerosols: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Possible test case verdicts:</b>	
- Test case does not require to the test object.....	NRq (Not required)
- 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)
<b>General remarks:</b>	
The test results presented in this report relate only to the submitted sample as received. This report shall not be reproduced, except in full, without the written approval of the issuing Laboratory can provide assurance that parts of a report are not taken out of context. Determination of the test results includes consideration of measurement uncertainty from the test equipment and methods. Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
<b>Environmental condition of the testing in this report:</b>	
1) Unless otherwise specified, the ambient temperature for testing shall be 25 °C;	
2) T.C. Temperature conditioned:	
a) for 24 h to a dry atmosphere of 70 °C;      b) for 24 h to a temperature of -30 °C; and return to room temperature 25 °C for 4 h between exposures and prior to subsequent testing.	

Page 3 of 11

Test Report Form No. EN149\_C  
Dated 2020-05

Report No.: [2020] WSZ FHL NO.5310

S.No (CLNo)	Test item	Unit	Technical requirements	Test result	Single item decision
1 (7.3)	Visual inspection	Marking/ information	Marking and the information supplied by the manufacturer, requirements refer to CL9 and CL10	The clause were not required	NRq
2 (7.4)	Packaging	Visual inspection	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. 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.	Particle filtering half masks packaged and protected against mechanical damage and contamination. Materials were suitable withstand handling and wear.	Pass
3 (7.5)	Material	Visual inspection	After undergoing S.W, none of the particle filtering half masks shall have suffered mechanical failure of the facepiece or straps.	Sample 1: neither facepiece nor straps have mechanical failure Sample 2: neither facepiece nor straps have mechanical failure Sample 3: neither facepiece nor straps have mechanical failure	Pass
			After undergoing S.W and T.C, none of the particle filtering half masks shall not collapse.	Sample 4: no collapse Sample 5: no collapse Sample 6: no collapse	
			Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.	Not constitute a hazard or nuisance for the wearer	
4 (7.6)	Cleaning and disinfecting		Particle filtering half mask designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer. Testing shall be done in accordance with 8.4 and 8.5.	<input type="checkbox"/> Fulfill the requirements after testing, or <input checked="" type="checkbox"/> The Particle filtering half mask is NOT re-usable according to information supplied by manufacturer	N/A
			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. Testing shall be done in accordance with 8.11.	<input type="checkbox"/> Tests results refer to S. No. (7.9.2), or <input checked="" type="checkbox"/> The Particle filtering half mask is NOT re-usable according to information supplied by manufacturer	

Page 4 of 11

Test Report Form No. EN149\_C  
Dated 2020-05

Report No.: [2020] WSZ FHL NO.5310

S.No. (C1.No)	Test item	Unit	Technical requirements	Test result	Single item decision	
5 (7.7)	Practical performance	Head harness comfort	Head harness should be comfort.	Sample 1: has the feeling of comfortable wearing.	Pass	
				Sample 2: has the feeling of comfortable wearing.		
	Security of fastenings	Fastenings are safe and reliable	Sample 1: All fastenings are firm Sample 2: All fastenings are firm			
Field of vision	Field of vision is acceptable	Field of vision is acceptable	Sample 1: Having a wider visual field	Pass		
			Sample 2: Having a wider visual field			
6 (7.8)	Finish of part	Visual inspection	Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.	Parts of the device have no sharp edges and burrs.	Pass	
7 (7.9)	Leakage— Penetration of filter material	Sodium chloride	≤5%	A.R. <sup>1)</sup> 0.1% 0.1% 0.1%	Pass	
				S.W. <sup>1)</sup> 0.1% 0.2% 0.1%		
		Paraffin oil		≤5%	M.S+ T.C. <sup>2)</sup> 0.2% 0.2% 0.2%	Pass
					A.R. <sup>1)</sup> 0.3% 0.2% 0.3%	
S.W. <sup>1)</sup> 0.2% 0.3% 0.3%						
M.S+ T.C. <sup>2)</sup> 1.2% 1.1% 1.2%						
<sup>1)</sup> average penetration over a time of 30s, beginning 3 min after the start of the test reported <sup>2)</sup> max. penetration during exposure test reported. Note: The penetration of the filter of the particle filtering half mask shall meet the requirements below: Maximum penetration of sodium chloride aerosol test 95 L/min max. FFP1: 20%, FFP2: 6%, FFP3: 1% Maximum penetration of paraffin oil aerosol test 95 L/min max. FFP1: 20%, FFP2: 6%, FFP3: 1%						

Report No.: [2020] WSZ FHL NO.5310

S.No. (C1.No)	Test item	Unit	Technical requirements	Test result	Single item decision
8 (7.10)	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 pcs all don't cause irritation	Pass
				T.C. 5 pcs all don't cause irritation	
9 (7.11)	Flammability	—	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.	A.R. The Sample is burning. Burning time:0.1s	Pass
				T.C. The Sample is burning. Burning time:0.1s	
10 (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). Remarks: 3 half masks (S1, S2 and S3) A.R. tested.	Sample 1 0.6320%	Pass
				Sample 2 0.6330%	
				Sample 3 0.6340%	
				average 0.63%	
11 (7.13)	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. All of 5 pieces particle filtering half mask meet the requirements	Pass
				T.C. All of 5 pieces particle filtering half mask meet the requirements	
12 (7.14)	Field of vision	—	The field of vision is acceptable if determined so in practical performance tests.	The two samples both have a wider visual field	Pass

Report No.: [2020] WSZ FHL NO.5310

S.No. (C1.No)	Test item	Unit	Technical requirements	Test result	Single item decision
13 (7.15)	Exhalation valve(s)	Visual inspection	A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.  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.	No exhalation valve(s)	N/A
				No exhalation valve(s)	
				No exhalation valve(s)	
Flow conditioning	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.	No exhalation valve(s)	N/A		
		No exhalation valve(s)			
Strength of attachment of exhalation valve housing	When the exhalation valve housing is attached to the facebuck, it shall withstand axially a tensile force of 10 N applied for 10 s.	No exhalation valve(s)	N/A		
		No exhalation valve(s)			
14 (7.17)	Clogging— Breathing resistance & Penetration of filter material	—	Optional for single shift use devices mandatory for re-usable devices. Tested by CL 7.17.1/2/3.	<input type="checkbox"/> Tests refer to Table C&D, or <input checked="" type="checkbox"/> Tests not requested for single shift use face mask	N/A
15 (7.18)	Demountable parts	—	All demountable parts (if fitted) shall be readily connected and secured, where possible by hand.	No demountable parts	N/A

Report No.: [2020] WSZ FHL NO.5310

**Table A- Leakage—Total Inward Leakage**

S.No. (C1.No)	Test item	Unit	Technical requirements <sup>1)</sup>	Test result						Single item decision	
				Exercises	E1 (%)	E2 (%)	E3 (%)	E4 (%)	E5 (%)		TIL (%)
16 (7.9.1)	Leakage— Total inward leakage	—	At least 46 out of the 50 individual exercise results shall be not greater than 12%. And in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than 8%.	A.R.	6.6	7.7	7.7	7.5	7.1	6.8	Pass
					6.3	7.0	7.1	7.0	6.4	7.3	
					6.2	7.0	7.5	7.4	6.7	7.0	
					6.0	7.2	7.0	7.2	6.5	6.8	
					6.0	7.1	6.9	7.1	6.4	6.7	
				T.C.	6.4	7.4	7.6	7.6	6.9	7.2	
					7.0	8.1	7.9	7.8	7.4	7.6	
					6.3	6.7	6.7	6.7	6.3	6.5	
					6.1	7.1	7.2	6.9	6.5	6.8	
					6.4	7.0	7.1	7.4	6.7	6.9	

Note 1:  
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 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.

**Table A-1- Test subjects—Facial dimension**

Test Subject No.	Length of face (mm)	Width of face (mm)	Depth of face (mm)	Width of mouth (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	160	50
9	118	139	130	63
10	120	135	125	50



Report No.: [2020] WSZ FHL NO.5310

**Table B- Breathing Resistance**

S.No (C1No)	Test item	Unit	Technical requirement <sup>(*)</sup>	Test result					Single item decision	
				Exercises	Facing directly ahead	Facing vertically upwards	Facing vertically downwards	Lying on the left side		Lying on the right side
17 (7.16)	Breathing resistance	Inhalation 30 L/min	≤0.7	A.R.	0.5	0.6	0.5	0.5	0.6	Pass
					0.6	0.6	0.5	0.5	0.5	
					0.5	0.6	0.6	0.5	0.5	
					0.5	0.5	0.5	0.6	0.6	
					0.6	0.6	0.6	0.6	0.6	
					0.6	0.6	0.6	0.6	0.6	
	Exhalation 100 L/min	≤1.0	A.R.	2.0	2.1	2.1	2.1	2.0	Pass	
				2.1	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
				2.0	2.1	2.0	2.1	2.1		
				2.1	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
Breathing resistance	Inhalation 95 L/min	≤2.4	A.R.	2.1	2.1	2.1	2.1	2.0	Pass	
				2.0	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
				2.0	2.1	2.1	2.1	2.0		
Breathing resistance	Exhalation 160 L/min	≤3.0	A.R.	2.5	2.5	2.6	2.6	2.6	Pass	
				2.6	2.6	2.5	2.5	2.5		
				2.6	2.6	2.5	2.5	2.6		
				2.6	2.5	2.5	2.5	2.6		
				2.6	2.6	2.6	2.5	2.5		
				2.5	2.6	2.6	2.6	2.6		
Breathing resistance	Exhalation 160 L/min	≤3.0	S.W.	2.6	2.6	2.6	2.5	2.6	Pass	
				2.6	2.6	2.6	2.5	2.5		
				2.6	2.6	2.6	2.5	2.5		
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		
Breathing resistance	Exhalation 160 L/min	≤3.0	T.C.	2.6	2.6	2.6	2.5	2.6	Pass	
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		
				2.6	2.6	2.6	2.5	2.6		

Note 1: Limitation may need be changed according to classification, refer to Table 2 — Breathing resistance of EN 149:2001 +A1:2009 for the Technical requirements.

Report No.: [2020] WSZ FHL NO.5310

**Table C- Clogging Test—Breathing resistance**

S.No (C1No)	Test item <sup>(*)</sup>	Unit	Technical requirements <sup>(*)</sup> (mbar)	Test result					Single item decision	
				Exercises	Facing directly ahead	Facing vertically upwards	Facing vertically downwards	Lying on the left side		Lying on the right side
18 (7.17)	Clogging test—Breathing resistance	Inhalation 95 L/min	mbar	—	A.R.					N/A
					T.C.					
	Exhalation 95 L/min	mbar	—	A.R.					N/A	
				T.C.						

Note 1: Valved particle filtering half masks  
After clogging the inhalation resistances shall not exceed FFP1: 4 mbar, FFP2: 5 mbar, FFP3: 7 mbar at 95 L/min continuous flow; The exhalation resistance shall not exceed 3 mbar at 160 L/min continuous flow.  
Note 2: 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 95 L/min continuous flow.

**Table D- Clogging Test—Penetration of filter material**

S.No (C1No)	Test item	Unit	Technical requirements	Test result	Single item decision
19 (7.17)	Clogging test—Penetration of filter material	Paraffin oil	—	A.R. — T.C. —	N/A

Note: Maximum penetration of test aerosol test 95 L/min max. FFP1: 20%, FFP2: 6%, FFP3: 1%

**Abbreviations :**

A.R. As received	M.S. Mechanical strength	S.W. Simulated wearing treatment
T.C. Temperature conditioned	F.C. Flow conditioned	C.D. Cleaning and Disinfecting

Report No.: [2020] WSZ FHL NO.5310

**Annex A- Estimates of the uncertainty of measurement**

Test item	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	1.99%

**Annex B- Sample Photo**



The end