

**AIRNATECH**<sup>®</sup>  
ANTIVIRAL



**PROTECTIVE MASK FFP2**  
**MÁSCARA DE PROTECCIÓN FFP2**

**10** PCS

CE EN 149:2001 FFP2  
MADE IN SPAIN

  
WE LOVE  
PURE AIR

**FICHA TÉCNICA DE LA MÁSCARA FACIAL PROTECTORA**  
**AIRNATECH AIR-001<sup>®</sup>**

## DESCRIPCIÓN GENERAL DEL PRODUCTO

Esta mascarilla facial protectora AIRNATECH AIR001® es un equipo de protección respiratoria desechable fabricada en España que cumple con los máximos estándares de calidad la cual ayuda a proporcionar protección contra partículas transportadas por el aire. Se expande para aportar una mayor sensación de amplitud, ayudando a aumentar el área de superficie y de este modo mejora la respiración.

De acuerdo con los estándares europeos la mascarilla **FFP2** está clasificada dentro del tipo III de acuerdo con la filtración bacteriana dispone de certificado **CE 731233** y cumple la especificación **EN 149:2001+A1:2009**.

**La mascarilla está compuesta por 5 capas de tejido no tejido de poliéster termosellado entre las que se colocan filtros antibacterianos: capa exterior de tejido no tejido hilado de 40 gr, segunda capa de membrana de meltblown de 25 gr, tercera capa de membrana de meltblown de 25 gr, cuarta capa de fibras de alto contenido de algodón 50g, y una quinta capa de tejido no tejido hilado de 25gr.**

La mascarilla desechable FFP2 95% de eficacia de filtración mínima, 8% de fuga hacia el exterior, ofrece protección frente a residuos no tóxicos, sí frente a elementos fibrogénicos. De esta manera, impide que inhalemos fluidos tóxicos de polvo, aerosoles y humos. Actúa contra distintos tipos venenosos y tóxicos de polvo, humo y aerosoles. Es eficaz contra bacterias, virus y esporas de hongos y ofrece una protección frente al covid-19 de más del 95% de filtración bacteriana gracias a nuestra alta calidad en los materiales utilizados.

Este producto no es una mascarilla quirúrgica y no debe utilizarse en quirófanos o en operaciones invasivas y tampoco es apta para proteger contra gases nocivos y vapor, operaciones subacuáticas, escapes y lucha contra incendios. Este producto no es adecuado para lugares de trabajo con llamas abiertas.

## CARACTERISTICAS

- Mascarilla desechable FFP2.
- Filtración mínima del 95%, proporcionando protección antibacteriana y antipolvo.
- Gomas elásticas laterales para ajuste perfecto. • Uso diario
- Diseño de media mascara 3D
- Plegable.

## N95 VS FFP3 Y FFP2

El N95 es uno de los respiradores más conocidos y comentados popularmente. Se constituye como un estándar estadounidense administrado por el Instituto Nacional para la Seguridad y Salud Ocupacional, el cual forma parte del Centro para el Control de Enfermedades (CDC).

Europa usa dos estándares diferentes para los respiradores. La clasificación de “pieza facial filtrante” (traducción al español de las siglas FFP) proviene de la norma EN 149:2001. Por otro lado, la norma EN 143 incorpora las clasificaciones P1 / P2 / P3. Ambas normas son reguladas por el CEN (Comité Europeo de Normalización).

<b>Estándar de Respirador</b>	<b>Capacidad de filtrado (porcentaje de eliminación de las partículas que miden 0,3 micras de diámetro o más grandes)</b>
FFP1 y P1	Al menos 80%
FFP2 y P2	Al menos 94%
N95	Al menos 95%
N99 y FFP3	Al menos 99%

# PACKAGING

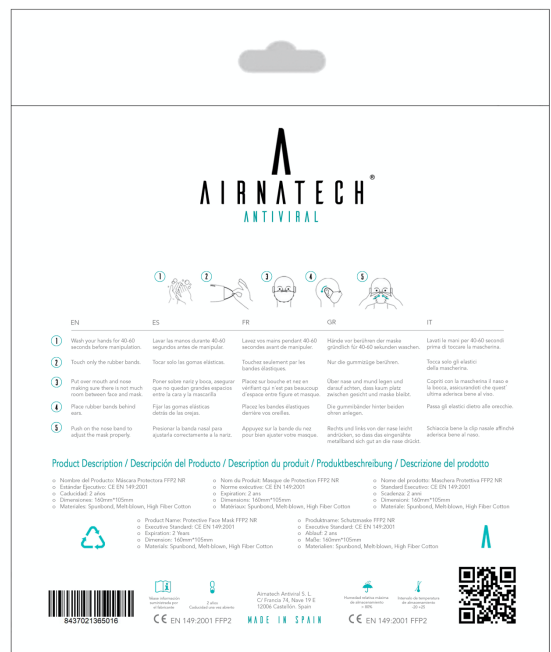
- Presentadas en cajas de 50 unidades, embolsadas en pack de 10 unidades. Total 500 mascarillas.
- Dimensiones caja cartón: 13,5 x 13 x 19 cm




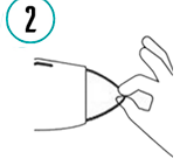



3 CM

20,5 CM

19,5 CM



## INSTRUCCIONES DE USO

- ES
-  Lavar las manos durante 40-60 segundos antes de manipular.
  -  Tocar solo las gomas elásticas.
  -  Poner sobre nariz y boca, asegurar que no quedan grandes espacios entre la cara y la mascarilla
  -  Fijar las gomas elásticas detrás de las orejas.
  -  Presionar la banda nasal para ajustarla correctamente a la nariz.

# CERTIFICADO CE 731233 FFP2 EN 149:2001



3249006 - Test Report.

## Introduction.

This report has been prepared by O. Refoyo and relates to the activity detailed below:

Job/Registration Details	Client Details
<b>Job number:</b> 3249006 Job type: Testing Samples Submitted Start Date: 30/06/2020 Test type: Type Sample ID: 10191452 <b>Registration:</b> CE 731233 Scheme: Negative pressure RPE Protocol: PP123 Scheme Manager: Nathan Shipley	Airnatech Antiviral. S.L. C/ JUAN BAUTISTA POETA, 4 CASTELLÓN 12006 Spain

The report has been approved for issue by M Mayo – Testing Team Manager

Approved For Issue	
	Issue Date: 29 July 2020

## Objectives.

This is an independent test evaluation to only certain clauses or sub-clauses of the agreed specification in accordance with the following test programme:

BSI COVID-19 filtering face piece technical specification, for COVID-19 masks for use by healthcare workers

## Product Scope.

COVID-19 masks for use by healthcare workers

## Report Summary.

The samples were received on 25 June 2020 and the testing was started on 30 June 2020.

The samples submitted complied with the requirements of the test work conducted.

## Test Samples.

Sample ID	ER Number	Description
1 to 19	10191452	Model: AIR001

## Description of Test Samples.

Sample Description
COVID-19 masks for use by healthcare workers: Model: AIR001

## Test Requirements.

### Testing in accordance with BSI COVID-19 filtering face piece technical specification

Technical testing specification for COVID-19 masks for use by healthcare workers

EN 149:2001+A1:2009 Performance requirement	EN 149:2001+A1:2009 Test method clause	Requirement	Assessment
<b>7.7 Practical performance</b> 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. Where practical performance tests show the apparatus has imperfections related to wearer's acceptance, the test house shall provide full details of those parts of the practical performance tests which revealed these imperfections.  <i>2 test subjects, masks tested 'As received'</i>	Testing shall be done in accordance with 8.4.	During the tests the particle filtering half mask shall be subjectively assessed by the wearer and after the test, comments on the following shall be recorded: a) head harness comfort; b) security of fastenings; c) field of vision; d) any other comments reported by the wearer on request.	Pass
<b>7.9 Leakage</b> <b>7.9.1 Total inward leakage</b>  <i>5 test subjects, masks tested 'As received'</i>	Testing shall be done in accordance with 8.5.	All samples must achieve All individual exercise results tests shall be not greater than 11 % (for FFP2) and, in addition, all arithmetic means for the total inward leakage shall be not greater than 8 % (for FFP2)	Pass
<b>7.9 Leakage</b> <b>7.9.2 Penetration of filter material</b> <i>3 test samples masks tested 'As received', for NaCl (Sodium Chloride) and PO (Paraffin oil), 3min test</i>	Testing shall be done in accordance with 8.11	6% for both PO and NaCl	Pass
<b>7.12 Carbon dioxide content of the inhalation air</b> <i>3 test samples, masks tested 'As received'</i>	Testing shall be done in accordance with 8.7.	The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume).	Pass
<b>7.16 Breathing resistance</b> <i>3 test samples, masks tested 'As received'</i>	Testing shall be done in accordance with 8.9	The breathing resistances shall meet the requirements of; 30l/min – 0.7mbar (inhale) 95l/min – 2.4mbar (inhale) 160l/min – 3.0mbar (exhale)	Pass

#### Appendix A - Test Panel Data

#### Product Photographs



## Glossary of Terms.

Pass: Complies. Tested by BSI engineers at BSI laboratories

Pass 1: Complies. Witnessed by BSI engineers in manufacturers laboratory.

Pass 2: Complies. Tests carried out by third party lab; results accepted by BSI.

Pass\*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

Fail: Non-compliance. Product does not meet the requirements of this clause.

Fail\*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/T: Not Tested

N/A: Not Applicable

AR: As Received

TC: Temperature Conditioned

SW: Simulated Wear

FT: Flow Tested

MS: Mechanical strength

MMDF: Manufactures Minimum Design Flow

MMDC: Manufactures Minimum Design Condition

## Conditions of Issue.

This Test Report is issued subject to the conditions stated in current issue of 'BSI Terms of Service'. The results contained herein apply only to the particular sample(s) tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of BSI, who reserve the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.

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Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditation.

Unless otherwise stated, any results not obtained from testing in a BSI laboratory are outside the scope of our UKAS accreditation.

## Test Results.

### Testing in accordance with BSI COVID-19 filtering face piece technical specification

BS EN 149:2001 +A1:2009 Technical testing specification for COVID-19 masks for use by healthcare workers

CLAUSE	REQUIREMENTS	ASSESSMENT
7.7	<p><b>Practical performance</b></p> <p>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. Where practical performance tests show the apparatus has imperfections related to wearer's acceptance, the test house shall provide full details of those parts of the practical performance tests which revealed these imperfections.</p> <p>Test in accordance with clause 8.4 of the standard.</p> <p><b>Testing in accordance with BSI COVID-19 filtering face piece technical specification, for masks for use by healthcare workers</b></p> <p><i>During the tests the particle filtering half mask shall be subjectively assessed by the wearer and after the test, comments on the following shall be recorded:</i></p> <p><i>a) head harness comfort; b) security of fastenings; c) field of vision; d) any other comments reported by the wearer on request.</i></p>	Pass

**Table A:** Practical performance

Test candidate	Sample	Comments				Assessment
		Head harness comfort	Security of fastenings	Field of vision	Any other comments	
JB1	1 AR	OK	OK	OK	None	Pass
JS3	2 AR	OK	OK	OK	None	Pass

### 7.9 Leakage

#### 7.9.1

Total inward leakage

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. The total inward leakage consists of three components: face seal leakage, exhalation valve leakage (if exhalation valve fitted) and filter penetration.

Test in accordance with clause 8.5 of the standard.

Pass

**Testing in accordance with BSI COVID-19 filtering face piece technical specification, for masks for use by healthcare workers**

*5 test subjects, masks tested 'As received'. All individual exercise results tests shall be not greater than 11 % (for FFP2) and, in addition, all arithmetic means for the total inward leakage shall be not greater than 8 % (for FFP2).*

**Table B:** Clause 7.9.1 - Total inward leakage

Test candidate	Sample	Pre test condition	Inward Leakage (%)					Assessment	
			A	B	C	D	E		
			Walking	Walking with head side to side	Walking with head up & down	Walking and talking	Walking		Average
SI1	3	AR	6.5012	5.4716	5.6287	3.4264	4.8513	5.1759	Pass
JW1	4	AR	4.8913	1.9338	3.8667	1.4200	2.6203	2.9464	Pass
JS3	5	AR	7.6273	5.9439	6.1768	4.0964	6.6797	6.1048	Pass
JB1	6	AR	8.4993	4.4702	7.7147	7.4523	6.8888	7.0050	Pass
LM2	7	AR	2.7655	2.8481	2.7848	2.7626	2.7672	2.7856	Pass

Test Results. (Continued)

CLAUSE	REQUIREMENTS	ASSESSMENT
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7.9.2 Penetration of filter material  
**Testing in accordance with BSI COVID-19 filtering face piece technical specification, for masks for use by healthcare workers**  
 3 test samples masks tested 'As received', for NaCl (Sodium Chloride) and PO (Paraffin oil), 3 min test. Testing shall be done in accordance with 8.11. 6% limit for both PO and NaCl

Pass

**Table C:** Clause 8.11 - Sodium Chloride penetration test

Sample number	Pre-test condition	Flow through filter (l/min)	Penetration (%)	
			Limit	Actual
8	AR	95	< 6	0.7557
9	AR			0.6088
10	AR			0.5387

**Table D:** Clause 8.11 - Paraffin oil penetration test

Sample number	Pre-test condition	Flow through filter (l/min)	Penetration (%)	
			Limit	Actual
11	AR	95	< 6	3.3680
12	AR			3.4750
13	AR			3.1020

**7.12 Carbon dioxide content of inhalation air**  
 The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0% (by volume).  
 Test in accordance with clause 8.7 of the standard.

Pass

**Table E:** Clause 8.7 - Carbon Dioxide content of the inhalation air

Sample	Pre-test condition	Dead space CO <sub>2</sub> (%)	
		Limit	Measured
14	AR	< 1.0	0.49
15	AR		0.44
16	AR		0.49

Test Results. (Continued)

CLAUSE	REQUIREMENTS	ASSESSMENT
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7.16

**Breathing resistance**

**Testing in accordance with BSI COVID-19 filtering face piece technical specification, for masks for use by healthcare workers**

3 test samples masks tested 'As received'. Test in accordance with clause 8.9 of the standard.

The breathing resistances shall meet the requirements of FFP2;  
30l/min – 0.7mbar (inhale), 95l/min – 2.4mbar (inhale), 160l/min – 3.0mbar (exhale)

Pass

**Table F:** Clause 8.9 – Breathing resistance. Inhalation resistance at a continuous flow

Sample	Pre-test condition	Continuous flow (l/min)	Inhalation resistance (mbar)	
			Limit	Measured
17	AR	30	< 0.7	0.47
18	AR			0.45
19	AR			0.47
17	AR	95	< 2.4	1.45
18	AR			1.32
19	AR			1.48

**Table G:** Clause 8.9 – Breathing resistance. Exhalation resistance at a continuous flow, measured in five orientations with the worst case reported

Sample	Pre-test condition	Continuous flow (l/min)	Exhalation resistance (mbar)	
			Limit	Measured
17	AR	160	< 3.0	2.42
18	AR			2.26
19	AR			2.51

## Appendix A. – Test Panel Data

Test Candidate	Facial Dimensions (mm)					Sex
	Length of face	Width of face	Face depth	Width of mouth	Head Circumference	
SI1	121	135	142	48	575	Male
JW1	116	126	122	48	570	Male
JS3	126	134	124	49	600	Male
JB1	114	144	108	59	574	Male
LM2	110	148	125	47	567	Male

Note: All candidates were clean shaven

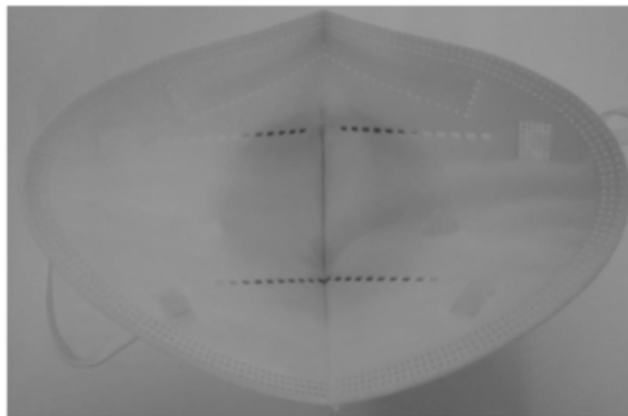
### Product photographs.



Front view



Side View



Inside View

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