


# Test Report 8780239/1 of 2.

## M.F.A. Is Guvenligi Medikal

## Introduction.

Job/Registration Details	Client Details
<b>Job number:</b> 8780239 Job type: Testing Samples Submitted Start Date: 02/08/2017 Test type: Type Sample ID: 10173031 <b>Registration:</b> CE 678691 Scheme: PPE CE Pt10 Protocol: PP123 Scheme Mgr: Nathan Shipley	M.F.A. Is Guvenligi Medikal Tekstil Imalat Tic. San. ltd. Sti Caydamar Mah. Ahmet kislali Cad. Zigem No:9/A Zonguldak 67020 Turkey

The report has been approved for issue by T Wicksey – Senior Test Engineer

Approved For Issue	
	Issue Date: 03/10/17

## Objectives.

This is an independent Certification test evaluation to only certain clauses or sub-clauses of the agreed specification in accordance with the following test programme: BS EN 149:2001 + A1:2009.

## Product Scope.

Filtering half mask, respiratory protective device, to protect against particles.

## Report Summary.

The samples were received on 02 August 2017 and the testing was started on 14 August 2017.

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

## Test Samples.

Sample Id	ER Number	Description
1	10173031	Model C-267 FFP2 NR

## Description of Test Samples.

Sample Description
Model C-267 Filtering Half Mask, FFP2 NR

## Test Requirements.

### BS EN 149:2001 + A1:2009

Respiratory protective devices - Filtering half masks to protect against particles.

CLAUSE	REQUIREMENTS	ASSESSMENT
<b>7</b>	<b>Requirements</b>	-
<b>7.1</b>	<b>General</b>	-
<b>7.2</b>	<b>Nominal values and tolerances</b>	-
<b>7.12</b>	<b>Carbon dioxide content of inhalation air</b>	PASS
<b>7.16</b>	<b>Breathing resistance</b>	PASS
<b>9</b>	<b>Marking</b>	N/T (1)
<b>10</b>	<b>Information to be supplied by the manufacturer</b>	N/T (1)
<b>Product Photographs</b>		

(1) Marking and user information not assessed as requested by BSI Product Certification.

## 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.

**BS EN 149:2001 + A1:2009**

Respiratory protective devices - Filtering half masks to protect against particles.

CLAUSE	REQUIREMENTS	ASSESSMENT
<b>7.1</b>	<b>General</b> In all tests all samples shall meet the requirements.	-
<b>7.2</b>	<b>Nominal values and tolerances</b> Unless otherwise specified, the values stated in this European Standard are expressed as nominal values. Except for temperature limits, values, which are not stated as maxima or minima, shall be subject to a tolerance of $\pm 5\%$ . Unless otherwise specified, the ambient temperature for testing shall be (16 – 32) °C, and the temperature limits shall be subject to an accuracy of $\pm 1^\circ\text{C}$ .	-
<b>7.12</b>	<b>Carbon dioxide content of inhalation air</b> 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 See Table A

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

Sample	Pre-test condition	Dead space CO <sub>2</sub> (%)	
		Limit	Measured
10	AR	< 1.00	0.54
11	AR	< 1.00	0.59
12	AR	< 1.00	0.49

## Test Results. (Continued)

CLAUSE	REQUIREMENTS	ASSESSMENT
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**7.16**

**Breathing resistance**

The breathing resistances apply to valved and valveless particle filtering half masks and shall meet the requirements of Table 2 of the standard.

A total of 9 valveless particle filtering half masks shall be tested:

3 as received, 3 after temperature conditioning in accordance with clause 8.3.2 of the standard and 3 after the test for simulated wearing in accordance with clause 8.3.1 of the standard.

Test in accordance with clause 8.9 of the standard.

PASS  
See Tables B, C, D

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

Sample	Pre-test condition	Continuous flow (l/min)	Inhalation resistance (mbar)	
			Limit	Measured
1	AR	30	0.70	0.36
2	AR	30	0.70	0.30
3	AR	30	0.70	0.33
4	SW	30	0.70	0.41
5	SW	30	0.70	0.40
6	SW	30	0.70	0.40
7	TC	30	0.70	0.34
8	TC	30	0.70	0.35
9	TC	30	0.70	0.33

## Test Results. (Continued)

CLAUSE	REQUIREMENTS	ASSESSMENT
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**7.16 Breathing resistance (continued)**

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

Sample	Pre-test condition	Continuous flow (l/min)	Inhalation resistance (mbar)	
			Limit	Measured
1	AR	95	2.40	1.22
2	AR	95	2.40	1.03
3	AR	95	2.40	1.10
4	SW	95	2.40	1.20
5	SW	95	2.40	1.29
6	SW	95	2.40	1.24
7	TC	95	2.40	1.06
8	TC	95	2.40	1.10
9	TC	95	2.40	1.07

**Table D:** 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
1	AR	160	3.00	1.90
2	AR	160	3.00	1.66
3	AR	160	3.00	1.72
4	SW	160	3.00	1.88
5	SW	160	3.00	2.06
6	SW	160	3.00	2.01
7	TC	160	3.00	1.72
8	TC	160	3.00	1.72
9	TC	160	3.00	1.73

A total of 12 valved particle filtering half masks shall be tested: 3 as received, 3 after temperature conditioning in accordance with clause 8.3.2 of the standard, 3 after the test for simulated wearing in accordance with clause 8.3.1 of the standard, and 3 after the flow conditioning in accordance with clause 8.3.4 of the standard.

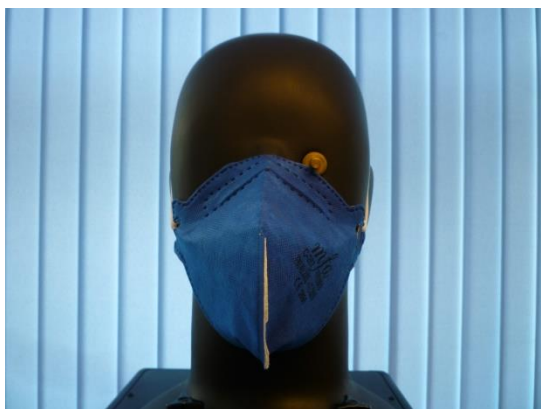
N/A (1)

Test in accordance with clause 8.9 of the standard.

(1) Not a design feature of this product.



Product photographs.



**END OF REPORT**