



REPORT

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Prepared for:
QUALITY SAFETY

DISPOSABLE RESPIRATORS

Issued by
TESTSAFE AUSTRALIA

Dealing with
**ASSESSMENT AND TESTING OF DISPOSABLE RESPIRATORS TO
AUSTRALIAN/NEW ZEALAND STANDARD 1716:2012,
'RESPIRATORY PROTECTIVE DEVICES'**

Report Details

Note: The test results contained in this report apply only to the samples submitted for testing and may not be indicative of the total batch from which the sample was drawn, or other manufactured batches of this type of respirator.

Your Reference: Initial application from Quality Safety dated 30 August 2018 for the testing of disposable respirators to AS/NZS1716: 2012.

Objective: To determine whether the equipment listed below meets the requirements of the Australian/New Zealand Standard 1716: 2012.

Equipment: 'help-it' Duckbill type disposable respirators

**Manufacturer and
Submitter:** Quality Safety
Unit 6/20 Pacific Place
Whanganui, 4500, New Zealand

Result Summary

Complies: 2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.8, 2.2.2, 3.1.1, 3.2.1, 3.2.5, 3.2.6, 4.2.2, 4.3.3, 4.3.4, 4.3.5, 12.1.2.1, 12.1.2.2, 12.1.3.1, 12.1.3.2, 12.2.1, 12.2.2.

Does not comply: Nil.

Conclusion: The respirators as listed in 'Equipment' satisfied the performance requirements as P2 to AS/NZS1716: 2012. They also met the requirements for Section 12 Marking and Instructions.

CLAUSES ASSESSED

Unless stated, reference is to all models.

SECTION 2 DESIGN AND CONSTRUCTION OF ASSEMBLED RESPIRATORS

2.1 GENERAL REQUIREMENTS

2.1.1 Assembled respirators

Satisfactory.

2.1.2 Materials

Satisfactory.

2.1.3 Filters

Par1 to 3

Not applicable.

Mass

Pass. For results, see Table 1.

TABLE 1-MASS	
MODEL	MASS (g)
help-it-1	7.40
help it-2	7.43
help-it-3	7.57
AS/NZS1716: 2012	≤ 300g

2.1.4 Shelf life

Satisfactory. While it is impractical to test this, it is assessed that the respirators would have a shelf life of at least 5 years when stored according to the recommendations of Section 9 of Australian Standard, "AS/NZS 1715: 2009, Selection, use and maintenance of respiratory protective equipment".

2.1.5 Combined protective equipment

Not applicable.

2.1.6 Noise level

Not applicable.

2.1.7 Protection against explosion

Not applicable.

2.1.8 Avoidance of frictional sparks

Satisfactory.

2.1.9 Protection from flame impingement

Not applicable.

2.2 FACIAL FIT

2.2.1 General

Satisfactorily applied. For results, see Clause 2.2.2.

2.2.2 Assessment

Pass. For results, see Table 2.

TABLE 2-TOTAL INWARD LEAKAGE					
EXERCISE	SUBJECT NUMBER				
	1	2	3	4	5
HEAD STILL	0.142	0.646	0.775	0.099	0.328
HEAD SIDE TO SIDE	0.113	1.377	0.852	0.197	0.741
HEAD UP AND DOWN	0.041	1.899	1.293	0.254	1.443
READING PASSAGE	0.436	2.938	1.673	0.745	2.200
HEAD STILL	0.063	2.737	0.944	0.410	6.855
MEAN	0.159	1.919	1.107	0.341	2.313
AS/NZS 1716: 2012	<p><u>Non Powered</u> Individual exercises and mean result: ≤ 8% for Class P2 non-powered half facepiece respirators</p>				

2.3 Breathing and connecting tube

Not applicable.

2.4 Demand valve

Not applicable.

SECTION 3 FACEPIECES AND HEAD COVERINGS

3.1 DESIGN REQUIREMENTS

3.1.1 General

- (a) Satisfactory.
- (b) Satisfactory.
- (c) Satisfactory.
- (d) Not applicable.
- (e) Not applicable.

Remainder

Paragraph 1- Satisfactory.

Paragraph 2- Not applicable.

Paragraph 3- Not applicable.

Paragraph 4- Not applicable.

3.1.2 to 3.1.5

Not applicable.

3.2 PERFORMANCE REQUIREMENTS

3.2.1 Facial fit

Satisfactorily applied. For results, see Clause 2.2.2.

3.2.2 Accumulated carbon dioxide

Not applicable.

3.2.3 Positive pressure screening test

Not applicable.

3.2.4 Exhalation valve

Not applicable.

3.2.5 Exhalation resistance-Air filtering respirators

Pass. For results, see Table 3.

(Tested in accordance with Appendix G of AS/NZS1716: 2012)

TABLE 3- EXHALATION RESISTANCE	
MODEL	EXHALATION RESISTANCE @ 85L/min (Pa)
help-it-1	105
help it-2	105
help-it-3	100
AS/NZS1716: 2012	≤ 120 for half facepieces

3.2.6 Security of attachments

Straps and buckles

Pass.

Attachments

Not applicable.

Each strap, buckle and its attachment to a half facepiece shall withstand an axial tensile force of 10 N applied for 10 s in the direction of pulling when the facepiece is fitted.

SECTION 4 PARTICULATE FILTER RESPIRATORS

4.1 DESIGN AND CONSTRUCTION

Noted and applied.

4.2 CLASSIFICATION AND COMPONENTS

4.2.1 Classes

The respirators are classified as (b) Class P2.

4.2.2. Components

Par 1- Satisfactory-The respirators incorporated a particulate filter complying with Clause 4.3.

They also incorporated:

(a) A half facepiece held securely in position by head straps;

(b-g) Not applicable.

4.3 PERFORMANCE REQUIREMENTS

4.3.1 General

Noted and applied.

4.3.2 Simulated rough usage

Not applicable.

4.3.3 Simulated wear

Satisfactorily applied/ Unsatisfactory/Not applicable. Explain why if unsatisfactory.

4.3.4 Inhalation Resistance

Pass. For results, see Table 4.

(Tested in accordance with Appendix G of AS/NZS1716: 2012)

TABLE 4- INHALATION RESISTANCE		
MODEL	INHALATION RESISTANCE	
	30L/min (Pa)	95L/min (Pa)
help-it-1	30	105
help it-2	32	110
help-it-3	30	110
AS/NZS1716: 2012	Assembled respirator ≤ 120 for P2 respirators	Assembled respirator ≤ 370 for P2 respirators

4.3.5 Test of filtering efficiency

Pass. For results, see Table 5.

(Tested in accordance with Appendix I of AS/NZS1716: 2012)

TABLE 5-FILTERING EFFICIENCY	
MODEL	FILTERING EFFICIENCY (%)
help-it-1	0.005
help it-2	0.006
help-it-3	0.003
AS/NZS 1716: 2012	≤ 6 for P2 respirators

4.3.6 Filters used in series

Not applicable.

SECTION 12 MARKING AND INSTRUCTIONS

12.1 MARKING**12.1.1 General**

Noted and applied.

12.1.2 Marking of facepieces and head coverings**12.1.2.1 Marking of equipment**

- (a) Satisfactory.
- (b) Not applicable.

12.1.2.2 Additional marking

- (a) Satisfactory.
- (b) Not applicable.
- (c) Not applicable.

12.1.3 Particulate filters**12.1.3.1 Marking of equipment**

- (a) Satisfactory.
- (b) Satisfactory.
- (c) Not applicable.

12.1.3.2 Additional marking

- (a) Satisfactory.
- (b) Not applicable.
- (c) Not applicable.
- (d) Not applicable.
- (e) Not applicable.

12.1.4 to 12.1.9

Not applicable.

12.2 INSTRUCTIONS FOR USE**12.2.1 General**

Satisfactory. Each respirator pack was supplied with clear instructions for use, printed in English.

- (a) Satisfactory.
- (b) Satisfactory.

12.2.2 Instructions for use, maintenance and storage

Satisfactory. On delivery, instructions accompanied each respirator in the smallest packaging unit. The requirements start at '(b)'.

- (b) Satisfactory.
- (c) Not applicable.
- (d) Not applicable.
- (e) Satisfactory.
- (f) Not applicable.
- (g) Not applicable.
- (h) Not applicable.

Remainder- Satisfactory.

12.2.3 Additional requirements for powered air-purifying respirators

Not applicable.

12.2.4 Instructions for use of the chemical oxygen (KO₂) self-contained self rescuers

Not applicable.

12.3 ADDITIONAL MARKING

Not applicable.



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