



# Test Report

SL52035260807501TX

Date:July 02,2020

Page 1 of 6

SUZHOU ZHONG JIAN CLEAN EQUIPMENT CO., LTD BUILDING 2, NO.1 MULIN ROAD, YUEXI STREET, WUZHONG ECONOMIC DEVELOPMENT ZONE, SUZHOU

The following sample(s) was/were submitted and identified on behalf of the client as:

| Sample Description    | : | (A)Non-medical comfortable protective mask<br>Request Age Grading: Adult  |
|-----------------------|---|---|
| SGS Internal Ref No.  | : | SHHL2006523318MD  |
| Style No.             | : | Fiche-01  |
| Sample Color          | : | (A)WHITE  |
| Previous No.          | : | SL52025256689101TX  |
| Test Performed        | : | Selected test(s) as requested by applicant  |
| Sample Receiving Date | : | Jun 17, 2020  |
| Testing Period        | : | Jun 17, 2020 - Jul 02, 2020   |
| Test Result(s)        | : | Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s). |

Based on the results of the tests reported and the previous report SL52025256689101TX issued on Jun 11, 2020, our Lab concluded that the recommendation level can be as below.

| Sample No. | <b>Recommendation Level</b> |  |  |
|------------|-----------------------------|--|--|
| (A)        | FFP2 NR                     |  |  |

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd Testing Center

Sara Guo (Account Executive)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results hown in this test report reter only to the sample(s) tested and such sample(s) are retained tor 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN. Doccheck@ess.com

3<sup>rd</sup>Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 tt (86-21) 61402666 ft (86-21) 64958763 www.sgsgroup.com.cn 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233 tt (86-21) 61402666 ft (86-21) 64958763 e sgs.china@sgs.com



Test Report

#### SL52035260807501TX

Date:July 02,2020

Test Result

# Personal Protective Equipment - Respiratory Protective Devices- Filtering Half Masks to Protect against Particles- Requirements, Testing, Marking

EN 149:2001+A1:2009

#### Clause 7.4 Packaging

(EN 149:2001+A1:2009 Clause 8.2)

| Test Requirement   | Results | Comment |
|--|---------|---------|
| 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. | Comply  | Pass    |

# Clause 7.7 Practical Performance

(EN 149:2001+A1:2009, Clause 8.4)

| Test Requirement   | Results          | Comment |
|--|------------------|---------|
| The particle filtering half mask shall undergo practical performance tests<br>under realistic conditions. These general tests serve the purpose of<br>checking the equipment for imperfections that cannot be determined by the<br>tests described elsewhere in this standard. | No imperfections | Pass    |

#### Clause 7.8 Finish of Parts

(EN 149:2001+A1:2009, Clause 8.2)

| Test Requirement  | Results        | Comment |
|---|----------------|---------|
| Parts of the device likely to come into contact with the wearer shall have no | No sharp       | Pass    |
| sharp edges or burrs.   | edges or burrs |         |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

3<sup>st</sup>Building,No.889,Ytshan Road,Xuhui District Shanghai,China 200233 tt (86–21) 61402666 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233 tt (86–21) 61402666

t (86–21) 61402666 f (86–21) 64958763 www.sgsgroup.com.cn t (86–21) 61402666 f (86–21) 64958763 e sgs.china@sgs.com



SL52035260807501TX

Date:July 02,2020

**Test Report** Clause 7.9.1 Total Inward Leakage

(EN 149:2001+A1:2009, Clause 8.5)

| Test Requirement   | Results                       | Comment                 |
|--|-------------------------------|-------------------------|
| The total inward leakage consists of three components: face seal leakage,<br>exhalation value leakage(if exhalation value fitted) and filter penetration.<br>For particle filtering half masks fitted in accordance with the manufacturer's<br>information, at least 46 out of the 50 individual exercise results (i.e. 10<br>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<br>for the total inward leakage shall be not greater than:<br>22% for FFP1, 8% for FFP2, 2% for FFP3 | Detail refer to<br>Appendix 1 | Meet FFP1,<br>Meet FFP2 |

# Appendix 1: Summarization of Test Data

#### Inward Leakage Test Data

| Subject | Sample | Condition | Walk(%) | Head         | Head       | Talk(%) | Walk(%) | Mean(%) |
|---------|--------|-----------|---------|--------------|------------|---------|---------|---------|
|         | No.    |           |         | Side/side(%) | up/down(%) |         |         |         |
| Zhou    | 1      | A.R.      | 5.06    | 6.49         | 7.41       | 5.69    | 6.01    | 6.13    |
| Luo     | 2      | A.R.      | 6.29    | 6.56         | 7.12       | 7.75    | 7.88    | 7.12    |
| Lu      | 3      | A.R.      | 6.73    | 5.20         | 6.29       | 6.23    | 6.23    | 6.14    |
| Wang    | 4      | A.R.      | 5.19    | 4.41         | 7.28       | 5.74    | 5.71    | 5.67    |
| Bao     | 5      | A.R.      | 8.07    | 8.43         | 7.28       | 6.60    | 5.68    | 7.21    |
| Ding    | 6      | T.C.      | 5.77    | 5.51         | 5.67       | 5.68    | 6.76    | 5.88    |
| Li      | 7      | T.C.      | 8.02    | 7.53         | 6.59       | 7.41    | 8.18    | 7.55    |
| Chen    | 8      | T.C.      | 5.08    | 6.51         | 5.56       | 6.56    | 6.00    | 5.94    |
| Song    | 9      | T.C.      | 7.83    | 6.14         | 6.59       | 6.85    | 5.50    | 6.58    |
| Ye      | 10     | T.C.      | 8.11    | 7.66         | 7.89       | 6.57    | 7.99    | 7.64    |

# Facial Dimension(mm)

| Subject | Face length | Face Width | Face Depth | Mouth Width |
|---------|-------------|------------|------------|-------------|
| Chen    | 125         | 150        | 120        | 58          |
| Lu      | 115         | 132        | 107        | 48          |
| Zhou    | 115         | 135        | 106        | 52          |
| Li      | 125         | 130        | 107        | 46          |
| Luo     | 125         | 136        | 100        | 43          |
| Zheng   | 128         | 140        | 112        | 55          |
| Wang    | 120         | 147        | 103        | 48          |
| Song    | 120         | 140        | 100        | 50          |
| Bao     | 130         | 134        | 104        | 50          |
| Ding    | 134         | 150        | 110        | 52          |
| Liu     | 120         | 135        | 117        | 50          |
| Ye      | 126         | 137        | 105        | 52          |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document form exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is inalwful and offenders may be prosecuted to the fullest extent of the law.Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, orgenali: CN.Doccheck@sgs.com</a>

3<sup>rd</sup>Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 t (86-21) 61402666 f (86-21) 64958763

www.sgsgroup.com.cn e sgs.china@sgs.com



#### SL52035260807501TX

Date:July 02,2020

Clause 7.13 Head Harness

**Test Report** 

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

| Test Requirement  | Results | Comment |
|---|---------|---------|
| The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.   | Comply  |         |
| The head harness shall be adjustable or self-adjusting and shall be<br>sufficiently robust to hold the particle filtering half mask firmly in position and<br>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)

| Test Requirement  | Results | Comment |
|---|---------|---------|
| The field of vision is acceptable if determined so in practical performance | Comply  | Pass    |
| tests.  |         | 1 435   |

# Clause 7.18 Demountable Parts

(EN 149:2001+A1:2009, Clause 8.2)

| Test Requirement   | Results                    | Comment |
|--|----------------------------|---------|
| All demountable parts (if fitted) shall be readily connected and secured, where possible by hand | No<br>demountable<br>parts | N/A     |

| Test   | Uncertainty |
|--|-------------|
| Total inward leakage                         | 3.4%        |
| Penetration of filter material               | 4.8%        |
| Carbon dioxide content of the inhalation air | 3.9%        |
| Breathing resistance (30L/min)               | 5.9%        |
| Breathing resistance (95L/min)               | 4.9%        |
| Breathing resistance (160L/min)              | 4.3%        |



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document report reter only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

3<sup>17</sup>Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 中国 · 上海 · 徐汇区宜山路889号3号楼 邮编: 200233 t (86–21) 61402666 f (86–21) 64958763 t (86–21) 61402666 f (86–21) 64958763

www.sgsgroup.com.cn e sgs.china@sgs.com



SL52035260807501TX

**Sample Photo** 





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document form exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is inalwful and offenders may be prosecuted to the fullest extent of the law.Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, orgenali: CN.Doccheck@sgs.com</a>

3<sup>rd</sup>Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 t (86-21) 61402666 f (86-21) 64958763

www.sgsgroup.com.cn e sgs.china@sgs.com



# **Test Report**



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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document form exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is inalwful and offenders may be prosecuted to the fullest extent of the law.Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, orgenali: CN.Doccheck@sgs.com</a>

t (86-21) 61402666

3<sup>rd</sup>Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 中国・上海・徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn f (86-21) 64958763

e sgs.china@sgs.com

Page 6 of 6