



中国认可  
国际互认  
检测  
TESTING  
CNAS L0118

# TEST REPORT



**Report no:** WLH0110-2020

**Client:** Shanghai TJKD Protection Technology Co.LTD.

**Product Name:** Folding Mask

**Product Model:** 5220

**Manufacturer:** Shanghai TJKD Protection Technology Co.LTD.

**Test Unit:** China Academy of Safety Science and Technology

**Test Category:** Company consigned Test

**Date of tests:** 2020/03/16-2020/03/20



# DECLARATION

1. The report is invalid if there is no test unit's "special seal for testing and inspection" or official Stamp; the multi-page test report without paging seal is invalid.
2. The report is invalid when there is no auditor's or authorized signatory's approval.
3. The report is invalid if there is any alteration.
4. Partial copy of the report is invalid. The copy of report with our permission shall be affixed with "special seal for testing and inspection" for confirmation.
5. The consigned Test Report is only responsible for received samples, and the test results are used by the client to understand delivered sample quality.
6. If there is any objection to the report, it should be submitted within 15 days from the date of receipt of the report, and it will not be accepted after the deadline.

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# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

No.: WLH0110-2020

1/6

|                     |  |  |   |
|---------------------|--|--|---|
| Product Name        | Folding Mask   | Product Model  | 5220  |
| Product Type        | Disposable Respirator (Without Valve, KN95)  |  |   |
| Manufacturer        | Shanghai TJDK Protection Technology Co.LTD.  | Trade Mark   | 安适达, AnStar   |
| Address             | Floor 2,Building 3,No.168 Xutang Road,<br>Songjiang, Shanghai, China   | Postcode   | /   |
| Contact Person      | Nai Fang   | Telephone no.  | 13816697298   |
| Quantity of Samples | 36 pcs of Respirators  | Production Date  | 1 <sup>th</sup> Mar, 2020   |
| Sample status       | Intact appearance and complete packaging   | Sample received  | 16 <sup>th</sup> Mar, 2020  |
| Test Category       | Company Consigned Test   | Sample delivery method   | Mailing   |
| Consigned by        | Shanghai TJDK Protection Technology Co.LTD.  | Identification No. of LA mark  | /   |
| Test Basis          | GB 2626-2006 "Respiratory protective equipment—Non-powered air-purifying particle respirator"  |  |   |
| Test Items          | Visual inspection, Filter efficiency, Total inward leakage, Inhalation resistance, Exhalation resistance, Dead space, Visual field, Head harness, Flammability, Information to be provided by the manufacturer   |  |   |
| Sample Images       |    |  |   |
| Test Conclusion     | <p>The samples are tested based on Chinese National standard GB 2626-2006 "Respiratory protective equipment—Non-powered air-purifying particle respirator", after inspection, all the tested items meet the standard technical requirements.</p> <p style="text-align: right;">Issued date: 2020.03.20</p> |  |   |
| Remarks             | <p>①Sample No.: WLH0110-2020<br/>         ②Original record number: WLH0110-2020<br/>         ③Description of sample appearance: folding type facepiece, with inside nose clip and white ear straps.</p>  |  |   |
| Approval:           |   | Auditor:  | Tester:  |



13816697298



# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

No.: WLH0110-2020

2/6

| Test Result Summary |                                |   |   |                                       |             |   |                                  |
|---------------------|--------------------------------|---|---|---------------------------------------|-------------|---|----------------------------------|
| No.                 | Test Items                     | Standard Requirements   | Test Results  | Conclusion                            | Remark      |   |                                  |
| 1                   | Visual inspection              | The sample surface shall not be damaged, deformation, or with other obvious defects;  | No damage, deformation and other obvious defects              | <b>Pass</b>                           | /           |   |                                  |
|                     |                                | the component materials and structure should be able to stand normal use conditions and possible temperature, humidity and mechanical impact that may encounter | Meet the requirements   |                                       |             |   |                                  |
|                     |                                | the head harness should be adjustable; the head harness design of the replaceable facepiece should be replaceable.  | Head harness is adjustable                                    |                                       |             |   |                                  |
|                     |                                | the eyeglass of full facepiece shall not be foggy that affect the vision when wearing.  | /   |                                       |             |   |                                  |
|                     |                                | After temperature and humidity pretreatment and mechanical strength pretreatment, the components shall not fall off, be damaged or deformation.                 | After pretreatment, no fall off, damage and deformation       |                                       |             |   |                                  |
| 2                   | Filter efficiency              | KN  | $\geq 90.0\%$ (KN90)  | /                                     | <b>Pass</b> | / |                                  |
|                     |                                |   | $\geq 95.0\%$ (KN95)  | Unpretreated                          |             |   |                                  |
|                     |                                |   |   | 99.4%                                 |             |   | 99.4%                            |
|                     |                                |   |   | 99.3%                                 |             |   | 99.4%                            |
|                     |                                |   |   | 99.7%                                 |             |   | 99.2%                            |
|                     |                                |   |   | 99.4%                                 |             |   | 99.3%                            |
|                     |                                |   |   | 99.3%                                 |             |   | 99.6%                            |
|                     |                                |   |   | Temperature and humidity pretreatment |             |   | Mechanical strength pretreatment |
|                     |                                |   |   | 99.2%                                 |             |   | /                                |
|                     |                                |   |   | 99.2%                                 |             |   | /                                |
|                     |                                |   |   | 99.0%                                 |             |   | /                                |
|                     |                                |   | 99.2%   | /                                     |             |   |                                  |
|                     |                                |   | 99.2%   | /                                     |             |   |                                  |
|                     |                                |   | $\geq 99.97\%$ (KN100)  | /                                     |             |   |                                  |
|                     |                                |   | Ambient temperature: (25±5)°C;<br>Relative humidity: (30±10)% | 24°C<br>34%                           |             |   |                                  |
| KP                  | $\geq 90.0\%$ (KP90)           | /   |   |                                       |             |   |                                  |
|                     | $\geq 95.0\%$ (KP95)           | /   |   |                                       |             |   |                                  |
|                     | $\geq 99.97\%$ (KP100)         | /   |   |                                       |             |   |                                  |
|                     | Ambient temperature: (25±5)°C; | /   |   |                                       |             |   |                                  |

# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

No.: WLH0110-2020

3/6

| Test Result Summary   |   |   |                   |   |            |        |
|---|---|---|-------------------|---|------------|--------|
| No.   | Test Items  | Standard Requirements   | Test Results      |   | Conclusion | Remark |
| 3   | Total Inward leakage (TIL) (Disposable Respirator)          | When TIL of each action is taken as basis of evaluation (10 people x 5 actions), TIL of at least 46 actions of the 50                             | <13% (KN90/KP90)  | /   | Pass       | KN95   |
|   |   |   | <11% (KN95/KP95)  | TIL values for all 50 actions are less than 3.3%          |            |        |
|   |   |   | <5% (KN100/KP100) | /   |            |        |
|   |   | When the overall TIL of a person is taken as basis for evaluation, the total TIL of at least 8 people of the 10 subjects                          | <10% (KN90/KP90)  | /   |            |        |
|   |   |   | <8% (KN95/KP95)   | Overall TIL values for all 10 subjects are less than 2.1% |            |        |
|   |   |   | <2% (KN100/KP100) | /   |            |        |
| 4-1   | Inward leakage (IL) (Replaceable Half facepiece Respirator) | When the IL of each action is taken as basis of evaluation (that is, 10 people x 5 actions), the IL of at least 46 actions of the 50 actions <5%. | /                 | /   | /          | /      |
|   |   | when the overall IL of a person is taken as basis for evaluation, the total IL of at least 8 people of the 10 subjects <2%                        | /                 | /   | /          | /      |
| 4-2   | Inward leakage (IL) (Replaceable Full facepiece Respirator) | When the IL of each action is taken as basis of evaluation (that is, 10 people x 5 actions), the IL of each action < 0.05%                        | /                 | /   | /          | /      |
| 5   | Inhalation resistance                                       | the total inhalation resistance of each sample $\leq 350$ Pa  | Unpretreated      | Temperature and humidity pretreatment                     | Pass       | /      |
|   |   |   | 73 Pa             | 65 Pa   |            |        |
|   |   |   | 74 Pa             | 68 Pa   |            |        |
| 6   | Exhalation resistance                                       | the total exhalation resistance $\leq 250$ Pa   | Unpretreated      | Temperature and humidity pretreatment                     | Pass       | /      |
|   |   |   | 70 Pa             | 64 Pa   |            |        |
|   |   |   | 70 Pa             | 65 Pa   |            |        |
| 7   | Exhalation valve air-tightness                              | a) When the air extracting velocity of flow reaches 500 mL/min, the system negative pressure cannot reach 1180 Pa;                                | /                 |   | /          | /      |
|   |   | b) The time for restoration of the exhalation valve to normal pressure is less than 20s.  | Unpretreated      | temperature and humidity pretreatment                     |            |        |
|   |   |   | /                 | /   |            |        |
|   |   |   | /                 | /   |            |        |
| Normal temperature, normal pressure relative humidity < 75% |   | /   |                   |   |            |        |



# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

No.: WLH0110-2020

4/6

| Test Result Summary                 |                                  |  |                                    |   |            |        |   |
|-------------------------------------|----------------------------------|--|------------------------------------|---|------------|--------|---|
| No.                                 | Test Items                       | Standard Requirements  |                                    | Test Results  | Conclusion | Remark |   |
| 8                                   | Exhalation valve cap             | The exhalation valve cap of the disposable facepiece is subjected to an axial tensile force of 10N for 10 seconds, and should not slide, break and distort.  |                                    | /   | /          | /      |   |
|                                     |                                  | The exhalation valve cap of the replaceable facepiece is subjected to an axial tensile force of 50N for 10 seconds, and should not slide, break and distort.   |                                    | /   |            |        |   |
| 9                                   | Dead space                       | When expressed as the volume fraction of carbon dioxide in the inhaled air, the average value of the results should be $\leq 1\%$  |                                    | 0.45%   | Pass       | /      |   |
|                                     |                                  | Ambient temperature: (16~32)°C;  |                                    | 24°C  |            |        |   |
| 10                                  | Visual field                     | Disposable facepiece   | Lower visual field $\geq 60^\circ$ | 68°   | Pass       | /      |   |
|                                     |                                  | Full facepiece   | Big eye window                     | Total visual field $\geq 70\%$                              |            |        | / |
|                                     |                                  |  |                                    | Double-eye visual field $\geq 80\%$                         |            |        | / |
|                                     |                                  | Double eye window  | Total visual field $\geq 70\%$     | /   |            |        |   |
| Double-eye visual field $\geq 20\%$ | /                                |  |                                    |   |            |        |   |
| 11                                  | Head harness                     | Each head harness, buckling and other adjustable components of the disposable facepiece should not slip or break when it is subjected to a tensile force of 10N for 10s.   |                                    | 10N tensile force pulling for 10s without slippage or break | Pass       | /      |   |
|                                     |                                  | Each head harness, buckling and other adjustable components of the replaceable half facepiece should not slip or break when it is subjected to a tensile force of 50N for 10s.   |                                    | /   |            |        |   |
|                                     |                                  | Each head harness, buckling and other adjustable components of the full facepiece should not slip or break when it is subjected to a tensile force of 150N for 10s.  |                                    | /   |            |        |   |
| 12                                  | Connections and Connection Parts | All the connections and connecting parts between the replaceable filter element and the half facepiece should not be no slide, break or distortion when subjected to an axial tensile force of 50N for 10s.  |                                    | /   | /          | /      |   |
|                                     |                                  | All connections and connection parts between the replaceable filter element and the full facepiece, and between the breathing hose and the filter element and the full facepiece should not be no slide, break or distortion when subjected to an axial tensile force of 250N for 10s. |                                    | /   |            |        |   |



# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

No.: WLH0110-2020

5/6

| Test Result Summary |  |   |  |                                       |             |   |
|---------------------|--|---|--|---------------------------------------|-------------|---|
| No.                 | Test Items                                     | Standard Requirements   | Test Results   | Conclusion                            | Remark      |   |
| 13                  | Eyeglass<br>(Fullfacepiece)                    | After each sample is impacted by a steel ball, No eyeglass of the sample shall be broken or in crack;   | /  | /                                     | /           |   |
|                     |  | Tested by the air tightness of the sample after the impact of the steel ball, the negative pressure drop in each sample within 60S should not be greater than 100Pa   | /  |                                       |             |   |
| 14                  | Air tightness<br>(Fullfacepiece)               | The negative pressure drop in each sample within 60S should not be greater than 100Pa   | /  | /                                     | /           |   |
| 15                  | Flammability                                   | After being removed from the flame, Various parts exposed to the flame should not burn; if burned, the after burning time should not exceed 5S.   | Unpretreated   | Temperature and humidity pretreatment | <b>Pass</b> | / |
|                     |  |   | 0.7s   | 0.5s                                  |             |   |
|                     |  |   | 0.8s   | 0.5s                                  |             |   |
| 16                  | Information to be provided by the manufacturer | Such information should be supplied along with the minimum package for sales;<br>There shall be Chinese explanation.<br>The information should be clear, and help explanations such as explanations, part numbers, and labels can be added.   | Information provided in Chinese, explained clearly, and supplied with the minimum package;<br>The information contained in the specification is comprehensive and sufficient for users |                                       | <b>Pass</b> | / |
|                     |  | Include the following information that users must know:<br>a) Scope of application and restriction;<br>b) For replaceable filter elements, there should be explanations on the method for use together with full or half facepiece, and if multiple filter materials, there should be indications;<br>c) Method of assemblage of the replaceable facepiece;<br>d) Method of inspection before use;<br>e) Method of wearing and method of inspection of the wearing air tightness;<br>f) Suggestions as to when to replace the filter elements;<br>g) If applicable, the method of maintenance (for instance, method of cleaning and sterilization);<br>h) Methods of storage;<br>i) Meaning of any of the symbols and icons used; |  |                                       |             |   |
|                     |  | Provide warnings about problems that may be encountered during use, such as:<br>a) Adaptability<br>b) Hair under the close frame can cause the mask to leak<br>c) Air quality (pollutants, hypoxia, etc.)   | Provide some required warnings information   |                                       |             |   |



# China Academy of Safety Science and Technology

## Test Report of Non-powered air-purifying particle respirator

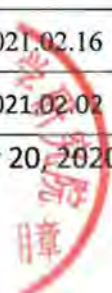
No. : WLH0110-2020

6/6

| Test Result Summary |            |  |   |                       |        |
|---------------------|------------|--|---|-----------------------|--------|
| No.                 | Test Items | Standard Requirements  | Test Results  | Conclusion            | Remark |
| 17                  | Mark       | The product body should have the product name, trademark or other manufacturer's identification, type or model (if applicable), implementation standard and year number, filter element filter grade   | /   |                       |        |
|                     |            | Product packaging should have the product name, trademark, or other manufacturer-identifiable label, type or model number (if applicable), implementation standard and year number, filter element filter grade, product license number, production date, or production batch number, Storage life, "see information provided by manufacturer", manufacturer's recommended storage conditions. | /   | /                     | /      |
| Main test equipment |            | Equipment No.  | Equipment Name  | Verification period   |        |
|                     |            | 2010072S   | High and Low Temperature Humidity Test Chamber SH-641 | 2019.04.19~2020.04.18 |        |
|                     |            | GJ-SB353   | TSI8130 Filtration Efficiency Tester                  | /                     |        |
|                     |            | GJ-SB413   | Inward leakage test cabin                             | /                     |        |
|                     |            | GJ-SB369   | TSI9306A Aerosol Generator                            | /                     |        |
|                     |            | GJ-SB371   | TSI8587A Aerosol Photometer                           | /                     |        |
|                     |            | GJ-SB372   | TSI8587A Aerosol Photometer                           | /                     |        |
|                     |            | GJ-SB415   | Breathing Resistance Test Device                      | 2020.02.14~2021.02.13 |        |
|                     |            | GJ-SB505   | Microcomputer Controlled Universal Testing Machine    | 2019.04.19~2020.04.18 |        |
|                     |            | GJ-SB380   | INSPEC Apertometer                                    | /                     |        |
|                     |            | GJ-SB417   | Dead space test device                                | 2020.02.17~2021.02.16 |        |
|                     |            | GJ-SB381   | Face mask flammability rig                            | 2020.02.03~2021.02.02 |        |

Test Date: Mar 16 2020 ~ Mar 20, 2020

The end of Report.



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**ISET S.r.l.**

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iset@iset-italia.com [www.iset-italia.eu](http://www.iset-italia.eu)

Cap. soc. i.v. € 10.200,00  
Cod. Fisc. e P.IVA 02 332 750 369  
Reg. Imprese 02 332 750 369  
REA MN 0221098

## CERTIFICATE OF COMPLIANCE

Certificado de Conformidade - Сертификат соответствия - Konformitätserklärung

**1) APPLICANT:**

Shanghai TJKD Protection Technology Co., Ltd.  
Floor 3, Building No. 3, No. 168, Xutang Road,  
Songjiang District, Shanghai, China

**2) CERTIFICATE NO.:**

IT1620TJ31081806

**TCF(S) NO.:**

2018-W-024

**3) WITH REFERENCE TO EC DIRECTIVE APPLIED:**

Personal Protective Equipment 2016/425

**4) CERTIFICATION ISET MARK:**

**HARMONIZED STANDARDS APPLIED:**  
EN 149:2001+A1:2009



**5) PRODUCT CHARACTERISTICS:** Respirator

**MODEL(S):** 5220,5820,5620,5660,5960,5961,5930,5910,8005,5710,5810,HX522,5220V,5820V, 5620V,5660V,  
5960V,5961V,5930V,5910V,8005V, HX5220V,5220CV,5110,5630,5220C,5110C,5630C,5220CV,  
5110CV,5630CV, 55646, 59420,53880,77543,59240,51020,55646V,59420V,53880V,77543V,  
59240V,51020V,88033,11011,11611,66199,66899,88033C,11011C,11611C,66199C,66899C,  
88033CV,11011CV,11611CV,66199CV,66899CV

**REMARK:** The verification has been carried out on a voluntary basis. We attest that a TCF is in place. The product(s) satisfies the requirements of the Certification Mark of ISET, in reference to the above list standard(s). The above compliance mark can be fixed on the product(s) according to the ISET regulation about its release. This verification doesn't imply assessment of the production and the product(s).



**Notice of the CE marking:** The label of the CE marking: Not less than 5mm height. Before putting the product(s) into market, CE marking and EC declaration are duties of the manufacturer. The manufacturer is responsible to start the CE marking certification procedure through an appointed Notified Body and to perform all the activities according to the Directive and accepted by the Notified Body.

**6) DATE OF ISSUE:** 31/08/2018

**DATE OF EXPIRE:** 30/08/2023

**CERTIFICATION MANAGER:**





# Shanghai TJKD Protection Technology Co Ltd

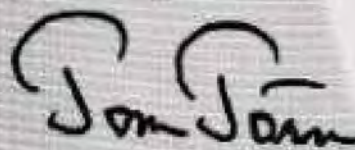
Floor 2, Building 3, No 168 Xutang Road,  
Songjiang, Shanghai, P.R.China

It is certified that the manufacturer's technical file and the PPE product detailed on  
page 2 have been assessed and found to be in accordance with

## Regulation (EU) 2016/425 Module B, EU type-examination

This certificate is valid from 14 May 2020 until 14 May 2025  
1. Certified since 14 May 2020

Authorised by

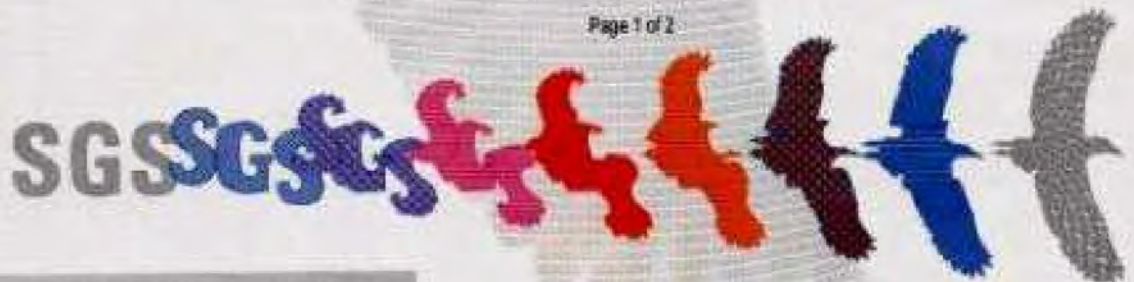


**FINAS**  
Finnish Accreditation Service  
S003 (EN ISO/IEC 17065)

SGS FIMKO OY, Notified Body 0598

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Page 1 of 2





**Shanghai TJDK Protection  
Technology Co Ltd**

**Regulation (EU) 2016/425**

Module B, EU type-examination

Issue 1

PPE Product

Anstar (logo) 5220, fold flat, single use Particle filtering half mask

It is certified that the manufacturer's technical file and the above mentioned PPE have been assessed and found to meet the applicable Essential Health and Safety Requirements in Annex II of Regulation (EU) 2016/425 Personal Protective Equipment

The following have been applied:

EN 149:2001 + A1:2009 (Respiratory protective devices – Filtering half masks to protect against particles) for a performance classification FFP2 NR

This certificate is issued on the strict condition that appropriate checks on manufactured PPE, as detailed in Article 19 (c) of the Regulation are implemented and maintained while the model is in production

Certification is based on technical file reference: Particle Filtering half mask / 5220, version 1.0 dated 2020-05-08

SGS Reference Number UK/CRS 241070.

This certificate remains the property of SGS Finland Oy Ltd to whom it must be returned to on request.

  
**FINAS**  
Finnish Accreditation Service  
S003 (EN ISO/IEC 17065)

上海天健地坤防护  
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上海天健地坤防护  
科技有限公司001

SGS

Certificate CN20/42064

The management system of

# Shanghai TJDK Protection Technology Co., Ltd.

Floor 2, Building 3, No.168 Xutang Road, Songjiang District,  
Shanghai, 201600, P.R. China

has been assessed and certified as meeting the requirements of

## Regulation (EU) 2016/425

Module C

上海天健地坤防护  
科技有限公司001

上海天健地坤防护  
科技有限公司001

For the following products

Manufacture of Anstar (logo) 5520, fold flat, single use Particle filtering half mask

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 Directive 89/686/EEC.

This certificate is valid from 26 May 2020  
and remains valid subject to satisfactory surveillance audits.  
Issue 1. Certified since 26 May 2020

Authorised by

**FINAS**

Finnish Accreditation Service  
S003 (EN ISO/IEC 17065)

*Tom Tom*

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Page 1 of 1



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