



Datum/Date: 2015-05-28 Tob/Lie

Translation

In any case, the German original shall prevail.

PRÜFBERICHT TEST REPORT

Nr./No.: 201521067/2120

- | | |
|---|--|
| 1 Auftraggeber/
Customer | Jiangsu Teyin Imp. & Exp. Co., Ltd.
No. 199 Shishan Road Metropolitan Towers Room 1204
Suzhou New District, Suzhou 2150
People's Republic of China |
| 2 Prüfmuster/
Test specimen | Respiratory protective device |
| 2.1 Hersteller/
Manufacturer | Jiangsu Teyin Non-woven Fabrics Co. Ltd.
No.2 East 4th Road, Hongze Industrial Zone
223100 Jiangsu Province
People's Republic of China |
| 2.2 Bauart, Bezeichnung/
Type, designation | Particle filtering half mask with exhalation valve /
TE YIN TY 0919V FFP1 NR D |
| Kennzeichnung/
Marking | TE YIN TY 0919V FFP1 NR D EN149:2001+A1:2009 |
| 2.3 Bestimmungsgemäße
Verwendung/
Intended use | For protection against non highly volatile liquid and solid particles.
Class of device: FFP1 NR D
Maximum application time or maximum particle exposure one
single shift. |
| 2.4 Datum der Herstellung/
Date of fabrication | 2015-02 |
| 2.5 Weitere Angaben/
Further details | .- |

**3 Prüfung/
Testing**

- 3.1 Art der Prüfung/
Type of test EC-type-test
- 3.2 Datum der Prüfung/
Date of testing March - May 2015
- 3.3 Prüfverfahren, -grundlagen/
Test method, requirements DIN EN 149:2009

**4 Beurteilung, Eignung/
Assessment, suitability
(Besondere Hinweise/
Special remarks)**

The particle filtering half mask TE YIN TY 0919V FFP1 NR D fulfils the requirements of DIN EN 149:2009 for particle filtering half masks of the device class FFP1 NR D.

Special Remarks:

According to a manufacturer's statement the particle filtering half mask TE YIN TY 0919V FFP1 NR D is identical in design and material, apart from the position of the exhalation valve and the marking, with the particle filtering half mask TE YIN TY 0929V FFP2 (Test report 200824726/2120 of 2009-04-20).

In the test-protocol are listed test-results from the test report 200824726/2120 under the items 5, 6 & 8-20 as well as for the particle filtering half mask TE YIN TY 0919V FFP1 NR D are listed additional tests under the items 6, 9 & 10.

Item 22 of the enclosed test protocol has to be regarded.

**5 Gültigkeit des Prüfberichtes/
Validity of Test Report**

Die ermittelten Ergebnisse gelten nur für die geprüften Objekte.
The test results apply to the tested objects only.

Einschränkungen der Gültigkeit oder Verwendung dieses Prüfberichtes:
Limitation of validity or use of this Test Report:

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**6 Allgemeine Hinweise/
General remarks**

Dieser Prüfbericht besteht aus
The present Test Report consists of

11

Seiten.
Pages.

Die Seiten 1 bis 3 enthalten das Gesamtergebnis der Prüfung. Zum vollständigen Prüfbericht gehört das Prüfprotokoll, aus dem die Einzelangaben ersichtlich sind.
Pages 1 to 3 indicate the overall test result. The complete Test Report also includes the test protocol containing all pertinent details.



Dieser Prüfbericht berechtigt nicht zur Verwendung des GS-Zeichens, BG-Zeichens oder CE-Zeichens.

The present Test Report does not warrant the use of the GS-label, BG-label or CE-mark.

Im Übrigen gilt die Prüf- und Zertifizierungsordnung der Prüf- und Zertifizierungsstellen im DGUV Test in Verbindung mit den Allgemeinen Geschäftsbedingungen der Deutschen Gesetzlichen Unfallversicherung e.V.

In all other respects the Rules of Procedure for Testing and Certification carried out by the Test and Certification Bodies in DGUV Test shall apply in conjunction with the General Business Conditions of the Deutsche Gesetzliche Unfallversicherung e.V.

Für die Beurteilung:
For the assessment:

Für die Prüfung:
For the testing:

Dipl.-Ing. Hans-Ulrich Tobys

Fachzertifizierer (in)
Certification officer

Dipl.-Ing. Judith Krisinger

Leiter(in) des Prüflabors
Head of Testlaboratory



Prüfprotokoll Test protocol

1. **Test Method:** DIN EN 149:2009
2. **Type of test:** EC-type-test
3. **Customer:** Jiangsu Teyin Imp. & Exp. Co., Ltd.
4. **Test specimen**
 - 4.1 Type: Particle filtering half mask with exhalation valve
 - 4.2 Designation: TE YIN TY 0919V FFP1 NR D
 - 4.3 Marking: TE YIN TY 0919V FFP1 NR D EN149:2001+A1:2009
 - 4.4 Class of device: FFP1 NR D

5. Conditioning

5.1 Simulated wearing

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to simulated wearing treatment according to DIN EN 149:2009 clause 8.3.1 before carrying out the further in table 4 given tests.

After simulated wearing treatment none of the conditioned particle filtering half masks shall have suffered mechanical failure of the facepiece and the particle filtering half masks shall not collapse.

The requirements are fulfilled.

5.2 Temperature conditioning

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to temperature conditioning according to DIN EN 149:2009 clause 8.3.2 before carrying out the further in table 4 given tests.

After temperature conditioning none of the conditioned particle filtering half masks shall collapse.

The requirement is fulfilled.

5.3 Mechanical strength

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to mechanical strength conditioning according to DIN EN 149:2009 clause 8.3.3 before carrying out the further in table 4 given tests.

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5.4 Flow conditioning

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to flow conditioning according to DIN EN 149:2009 clause 8.3.4 before carrying out the further in table 4 given tests.

6. Breathing resistance

6.1 Requirements

Max. inhalation resistance at a flow rate of 30 l/min:	60 Pa
Max. inhalation resistance at a flow rate of 95 l/min:	210 Pa
Max. exhalation resistance at a flow rate of 160 l/min:	300 Pa

6.2 Test specimen

T.-No 1-12: TE YIN TY 0929V FFP2

T.-No 13: TE YIN TY 0919V FFP1 NR D

6.3 Test results

Test	Conditioning	Breathing resistance [Pa]		
		Inhalation at 30 l/min	Inhalation at 95 l/min	Exhalation at 160 l/min
1	as received	36	130	140
2	as received	40	144	151
3	as received	39	142	148
4	EN 149:2001, 8.3.1	41	145	155
5	EN 149:2001, 8.3.1	37	132	140
6	EN 149:2001, 8.3.1	39	143	153
7	EN 149:2001, 8.3.2	38	137	155
8	EN 149:2001, 8.3.2	38	139	141
9	EN 149:2001, 8.3.2	31	147	146
10	EN 149:2001, 8.3.2 & 8.3.4	40	143	138
11	EN 149:2001, 8.3.2 & 8.3.4	37	133	157
12	EN 149:2001, 8.3.2 & 8.3.4	38	135	149
13	EN 149:2001, 8.3.2	48	184	259

The requirements are fulfilled.

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7. Clogging

7.1 Test flow rate: 15 cycles/min and 2,0 l/stroke

7.2 Test conditions

According to DIN EN 149:2001 clause 8.10 clogging is performed at a Dolomite dust concentration of $(400 \pm 100) \text{ mg/m}^3$ until the product of dust concentration and test period is $833 \text{ mg}\cdot\text{h/m}^3$ has been clogged.

7.3 Requirements

The breathing resistance after clogging of particle filtering half masks of the device class FFP1 NR D including an exhalation valve shall not exceed 400 Pa in case of inhalation measured at a continue flow rate of 95 l/min and 300 Pa in case of exhalation measured at a continue flow rate of 160 l/min.

7.4 Test results

Test	Conditioning	Inhalation resistance at 95 l/min [Pa]	Exhalation resistance at 160 l/min [Pa]
1	as received	282	248
2	EN 149:2001, 8.3.2	282	274

The test results refer to a dust concentration and test period product value of $833 \text{ mg}\cdot\text{h/m}^3$.

The requirements are fulfilled.

8. Flammability

Four particle filtering half masks were tested, two in the state as received and two after temperature conditioning (DIN EN 149:2009, clause 8.3.2).

The four tested samples shall not burn with their own flame.

The requirement is fulfilled.

9. Filter penetration at test against paraffin oil

9.1 Test flow rate: 95 l/min

9.2 Requirements

Maximum filter penetration: 20,0 %

9.3 Test specimen

T.-No 1-9: TE YIN TY 0929V FFP2

T.-No 10-12: TE YIN TY 0919V FFP1 NR D

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9.4 Test results

Test	Conditioning	Penetration [%]	
		measured value 1	measured value 2
1	as received	1,7	-, -
2	as received	1,3	-, -
3	as received	1,1	-, -
4	EN 149:2001, 8.3.1	1,7	-, -
5	EN 149:2001, 8.3.1	1,6	-, -
6	EN 149:2001, 8.3.1	1,7	-, -
7	EN 149:2001, 8.3.2	3,4	4,0
8	EN 149:2001, 8.3.2	2,8	3,5
9	EN 149:2001, 8.3.2	3,2	4,5
10	EN 149:2001, 8.10	0,5	-, -
11	EN 149:2001, 8.3.2 & 8.10	0,3	-, -
12	EN 149:2001, 8.3.3 & 8.3.2	0,6	0,6

Measured value 1: Filter penetration after 3 minutes

Measured value 2: Maximum filter penetration during paraffin oil exposure until 120 mg

The requirements are fulfilled.

10. Filter penetration at test against sodium chloride

10.1 Test flow rate: 95 l/min

10.2 Requirements

Maximum filter penetration: 20,0 %

10.3 Test specimen

T.-No 1-9: TE YIN TY 0929V FFP2

T.-No 10, 11: TE YIN TY 0919V FFP1 NR D

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10.4 Test results

Test	Conditioning	Penetration [%]	
		measured value 1	measured value 2
1	as received	0,5	-, -
2	as received	0,5	-, -
3	as received	0,4	-, -
4	EN 149:2001, 8.3.1	0,5	-, -
5	EN 149:2001, 8.3.1	0,4	-, -
6	EN 149:2001, 8.3.1	0,8	-, -
7	EN 149:2001, 8.3.3 & 8.3.2	1,4	1,4
8	EN 149:2001, 8.3.3 & 8.3.2	1,8	1,8
9	EN 149:2001, 8.3.3 & 8.3.2	1,7	1,7
10	EN 149:2001, 8.10	<0,1	-, -
11	EN 149:2001, 8.3.2 & 8.10	<0,1	-, -

Measured value 1: Penetration after 3 minutes

Measured value 2: Maximum penetration

The requirements are fulfilled.

11. Total inward leakage

11.1 Test conditions

Treadmill speed: 6 km/h

Duration of exercise: 2 min per exercise

Type of exercises: Ex. No. 1 = Walking

Ex. No. 2 = Walking and turning the head

Ex. No. 3 = Walking and head up and down

Ex. No. 4 = Walking and speaking

Ex. No. 5 = Walking

11.2 Requirements

The total inward leakage shall not exceed 25 % in 46 of the 50 individual results (10 persons x 5 exercises).

The total inward leakage shall not exceed 22 % in 8 of the 10 arithmetic means (10 persons).

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11.3 Test results (total inward leakage in %)

Subject	Conditioning	Exercises					Mean
		1	2	3	4	5	
1	as received	6,7	7,2	4,3	9,0	6,0	6,6
2	as received	3,1	2,3	2,3	2,4	2,8	2,6
3	as received	2,3	3,1	3,1	9,0	3,4	4,2
4	as received	0,4	0,4	0,4	0,7	0,4	0,5
5	as received	2,6	2,6	1,8	1,1	1,3	1,9
6	EN 149:2001, 8.3.2	4,1	2,8	2,7	3,4	3,7	3,3
7	EN 149:2001, 8.3.2	3,7	3,7	3,6	1,5	2,0	2,9
8	EN 149:2001, 8.3.2	6,7	4,8	3,2	4,0	5,8	4,9
9	EN 149:2001, 8.3.2	0,6	1,0	1,3	1,5	1,9	1,3
10	EN 149:2001, 8.3.2	0,3	3,8	3,1	1,4	0,9	1,9

The requirements are fulfilled.

12. Practical performance

After the practical performance test the respiratory protective device was assessed by two test subjects.

12.1 Assessment wearer 1

Head harness comfort : no complaint
Security of fastenings: no complaint
Field of vision: no complaint
Additional remarks: none

12.2 Assessment wearer 2

Head harness comfort: no complaint
Security of fastenings: no complaint
Field of vision: no complaint
Additional remarks: none

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13. Carbon dioxide content of the inhalation air

13.1 Test procedure

The carbon dioxide content of the inhalation air (dead space) shall be measured at the mouth of the dummy head with a breathing machine adjusted to 25 cycles/min and 2.0 l/stroke.

13.2 Requirement

The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0 % (by volume), measured at an ahead wind-speed of 0.5 m/s.

13.3 Test results

Concentration [Vol.-%]	Test 1	Test 2	Test 3
CO ₂ content of the inhalation air	0,60	0,61	0,66

The requirement is fulfilled.

14. Package

Particle filtering half masks shall be offered for sale and packaged in such a way that they are protected against mechanical damage and contamination before use.

The requirements are fulfilled.

15. Finish of parts

Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.

The requirements are fulfilled.

16. Head harness

16.1 Head harness after simulated wearing

After the simulated wearing treatment (DIN EN 149:2009 clause 8.3.1) of three particle filtering half masks, no mechanical deflection of the head harness shall occur.

The requirement is fulfilled.

16.2 Adjustability and hold of the head harness

The assessment was executed during the leakage tests and practical performance tests.

The requirements are fulfilled.

17. Compatibility with skin

The materials coming into contact with the wearers' skin during the leakage tests and practical performance tests shall not cause any irritation or any other negative health effect for wearers.

The requirements are fulfilled.

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18. Field of vision

The field of vision is acceptable if determined so in practical performance tests.

The requirements are fulfilled.

19. Exhalation valve

19.1 Test at exhalation flow rate of 300 l/min

Two particle filtering half masks were tested after temperature conditioning (DIN EN 149:2009 clause 8.3.2) and one particle filtering half mask was tested as received.

The requirements are fulfilled.

19.2 Test of the fitting of the exhalation valve housing

Three particle filtering half masks were tested one as received, one after temperature conditioning (DIN EN 149:2009 clause 8.3.2) and one after mechanical strength conditioning (DIN EN 149:2009 clause 8.3.3).

The requirements are fulfilled.

20. Mass of the respiratory device: 15 g

21. Marking

21.1 Marking of mask

The requirements are fulfilled.

21.2 Marking of packaging

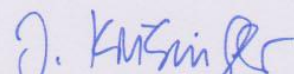
The requirements are fulfilled.

22. Information supplied by the manufacturer


Only the instructions for use in German language were revised.

The performed test results apply to the tested objects only.
A statement about the uniformity of production cannot be derived.

Institute for Occupational Safety and Health – IFA –
In charge


Dipl.-Ing. Judith Krisinger

Person responsible


Benedikt Brenner

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IFA

Institut für Arbeitsschutz der
Deutschen Gesetzlichen Unfallversicherung
Prüf- und Zertifizierungsstelle im DGUV Test

Europäisch notifizierte Stelle
Kenn-Nummer 0121

**Expertise according to Article 11A of the Directive 89/686/EEC
EC-quality control system for the final product**

No. 1511017

**Name and address of holder
of the certificate:**

Jiangsu Teyin Imp. & Exp. Co., Ltd.
No. 199 Shishan Road Metropolitan Towers Room 1204
Suzhou New District, Suzhou 2150
PEOPLE'S REPUBLIC OF CHINA

**Name and address of the
manufacturer:**

Jiangsu Teyin Non-woven Fabrics Co., Ltd.
No. 2 East 4th Road, Hongze Industrial Zone
223100 Jiangsu Province
PEOPLE'S REPUBLIC OF CHINA

Ref. of customer:

Ref. of Test and Certification Body:
681.4 Tob/Lie

Date of Issue:
2015-05-28

Product designation:

TE YIN TY 0919V FFP1 NR D

Type:

Particle filtering half mask with exhalation valve

Identification:

TE YIN TY 0919V FFP1 NR D EN149:2001+A1:2009

Remarks:

This expertise is valid in connection with test report No.
201521067/2120 of 2015-05-28.

The Test and Certification Body of the Institute for occupational safety and health - IFA (identification number 0121) has made the required inspections according to Article 11 A of the Directive 89/686/EEC for the above-mentioned holder of the

EC Type Test Certificate No. **1501044** of **2015-05-28**.

The tests showed no discrepancies regarding production; the personal protective equipment corresponded with the test type indicated in the EC-Type Test Certificate and fulfilled the corresponding essential requirements.

According to Article 11 A of the Directive 89/686/EEC the next required control inspection has to be made until **2016-05-27**.

Certification officer

Dipl.-Ing. Hans-Ulrich Tobys