

certificate
no. IFA 1501181
dated 2016-10-21



IFA

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

Translation In any case, the German original shall prevail.

European notified body
Identification number: 0121

EC Type-Examination Certificate

Name and address of the holder of the certificate (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

Product designation: TE YIN TY 1729 FFP2 NR EN149:2001+A1:2009

Type: Particle filtering half mask

Testing based on: DIN EN 149:2009

Test report: 201523124/2120 of 2016-10-19 - IFA, Sankt Augustin

Further details: For protection against non highly volatile liquid and solid particles.

Class of device: FFP2 NR

Maximum application time or maximum particle exposure one single shift.

This document is valid in connection with the technical file and the instructions for use in German language, both provided with IFA endorsement 1501181 of 2016-10-16.

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

The product tested complies with the essential requirements of Annex II of the directive 89/686/EEC (**Personal Protective Equipment**), amended by the directives 93/68/EEC, 93/95/EEC and 96/58/EC.

The present certificate is valid until: **2021-10-20**

Further provisions concerning the validity, the extension of the validity and other conditions are laid down in the Rules of Procedure for Testing and Certification.

Handwritten signature of Peter Paszkiewicz

Dr. rer. nat. Peter Paszkiewicz
Head of testing and certification body

Handwritten signature of Hans-Ulrich Tobys

Dipl.-Ing. Hans-Ulrich Tobys
Certification officer



Datum/Date: 2016-10-19 Tob/MS

Translation

In any case, the German
original shall prevail.

PRÜFBERICHT TEST REPORT

Nr./No.: 201523124/2120

- | | |
|---|--|
| 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 / TE YIN TY 1729 FFP2 NR |
| Kennzeichnung/
Marking | TE YIN TY 1729 FFP2 NR EN 149:2001 + A1:2009 |
| 2.3 Bestimmungsgemäße
Verwendung/
Intended use | For protection against non highly volatile liquid and solid particles.
Class of device: FFP2 NR
Maximum application time or maximum particle exposure one
single shift. |
| 2.4 Datum der Herstellung/
Date of fabrication | 2016 |
| 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 September - October 2016
- 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 1729 FFP2 NR fulfils the requirements of DIN EN 149:2009 for particle filtering half masks of the device class FFP2 NR.

Special Remarks:

According to a manufacturer's statement the particle filtering half mask TE YIN TY 1729 FFP2 NR is identical with the under test report 201020735/2120 of 2010-06-24 type tested particle filtering half mask (Delivery 2010).

In the test-protocol are listed test-results from the test report 201020735/2120 under the items 6 - 18 and additional test results for the particle filtering half mask TE YIN TY 1729 FFP2 NR (Delivery 2016) are listed under the items 6 - 8.

This test report replaces the test report 201020735/2120.

Item 21 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.



IFA

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

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 Non-woven Fabrics Co. Ltd.
4. **Test specimen**
 - 4.1 **Type:** Particle filtering half mask
 - 4.2 **Designation:** TE YIN TY 1729 FFP2 NR
 - 4.3 **Marking:** TE YIN TY 1729 FFP2 NR EN 149:2001 + A1:2009
 - 4.4 **Class of device:** FFP2 NR

5. **Visual inspection**

The particle filtering half masks TE YIN TY 1729 FFP2 NR, which were submitted for type test, are visually identical with the 2010 type tested particle filtering half masks.

6. **Conditioning**

6.1 **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.

6.2 **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.

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6.3 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.

7. Breathing resistance

7.1 Requirements

Max. inhalation resistance at a flow rate of 30 l/min:	70 Pa
Max. inhalation resistance at a flow rate of 95 l/min:	240 Pa
Max. exhalation resistance at a flow rate of 160 l/min:	300 Pa

7.2 Test specimen

T.-No 1-9:	TE YIN TY1729 FFP2 (Delivery 2009)
T.-No 10:	TE YIN TY 1729 FFP2 NR (Delivery 2010)
T.-No 11:	TE YIN TY 1729 FFP2 NR (Delivery 2015)

7.3 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	38	134	207
2	as received	40	137	208
3	as received	45	149	237
4	EN 149:2001, 8.3.1	44	147	232
5	EN 149:2001, 8.3.1	39	135	210
6	EN 149:2001, 8.3.1	42	144	225
7	EN 149:2001, 8.3.2	40	139	210
8	EN 149:2001, 8.3.2	43	145	228
9	EN 149:2001, 8.3.2	41	141	219
10	EN 149:2001, 8.3.2	43	151	231
11	EN 149:2001, 8.3.2	35	129	209

The requirements are fulfilled.

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8. Filter penetration at test against paraffin oil

8.1 Test flow rate: 95 l/min

8.2 Requirements

Maximum filter penetration: 6,0 %

8.3 Test specimen

T.-No 1-12: TE YIN TY1729V FFP2 (Delivery 2009)

T.-No 13: TE YIN TY1729 FFP2 (Delivery 2009)

T.-No 14: TE YIN TY 1729 FFP2 NR (Delivery 2010)

T.-No 15: TE YIN TY 1729 FFP2 NR (Delivery 2015)

8.4 Test results

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

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.

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9. Filter penetration at test against sodium chloride

9.1 Test flow rate: 95 l/min

9.2 Requirements

Maximum filter penetration: 6,0 %

9.3 Test specimen

T.-No 1-12: TE YIN TY1729V FFP2 (Delivery 2009)

T.-No 13: TE YIN TY1729 FFP2 (Delivery 2009)

T.-No 14: TE YIN TY 1729 FFP2 NR (Delivery 2010)

9.4 Test results

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

Measured value 1: Penetration after 3 minutes

Measured value 2: Maximum penetration

The requirements are fulfilled.

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10. Total inward leakage

10.1 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

10.2 Requirements

The total inward leakage shall not exceed 11 % in 46 of the 50 individual results (10 persons x 5 exercises).

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

10.3 Test results (total inward leakage in %)

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

The requirements are fulfilled.

11. Practical performance

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

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 The test results apply to the tested object only.

11.1 Assessment wearer 1

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

11.2 Assessment wearer 2

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

12. Carbon dioxide content of the inhalation air

12.1 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.

12.2 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.

12.3 Test results

Concentration [Vol.-%]	Test 1	Test 2	Test 3
CO ₂ content of the inhalation air	0,81	0,81	0,82

The requirement is fulfilled.

13. 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.

14. 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.

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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.

18. Field of vision

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

The requirements are fulfilled.

19. Mass of the respiratory device: 9 g

20. Marking

20.1 Marking of mask

The requirements are fulfilled.

20.2 Marking of packaging

The requirements are fulfilled.

21. Information supplied by the manufacturer

Only the instructions for use in German language were revised.

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The test results apply to the tested object only.



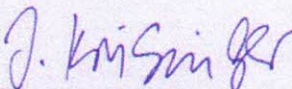
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Deutschen Gesetzlichen Unfallversicherung
Prüf- und Zertifizierungsstelle im DGUV Test

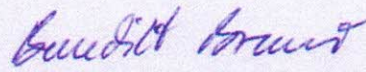
The performed test results apply to the tested objects only.

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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The test results apply to the tested object only.