

# The Introduction of FFP2 Mask

## From

# TENGFEI TECHNOLOGY





Six layers protection-breathe freely

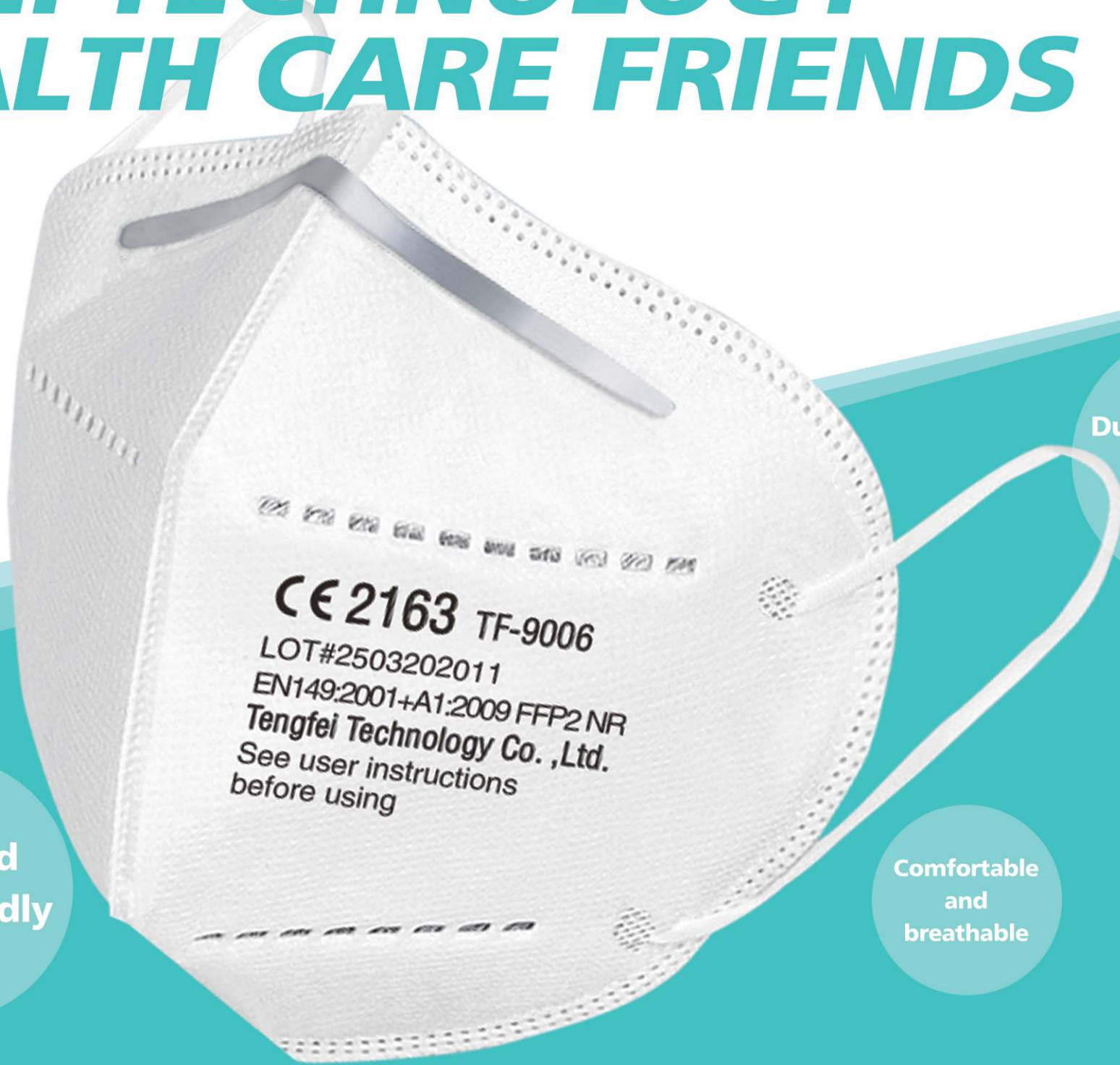
# **TENGFEI TECHNOLOGY** **YOUR HEALTH CARE FRIENDS**

droplets  
prevention

Dust prevention  
and  
anti-allergy

Safe and  
skin-friendly

Comfortable  
and  
breathable



CE 2163 TF-9006  
LOT#2503202011  
EN149:2001+A1:2009 FFP2 NR  
Tengfei Technology Co., Ltd.  
See user instructions  
before using

**FFP2**

*EU Standard: EN 149:2001+A1: 2009 FFP2*

# TUV Qualification



Test Report No.: 178139337a 001

Page 11 of 11

Photo:



- END -

**Products**  
TÜVRheinland®  
Precisely Right.

**Test Report No.:** 178139337a 001  
*Page 1 of 11*

**Client:**  
TENGFEEI TECHNOLOGY CO.,LTD  
111 TONGJIU ROAD,ZHANGPU TOWN,KUNSHAN CITY, JIANGSU, P.R. CHINA  
Contact Person: Chenyun Zhang

**Sample Description As Declared:**  
No. Of Sample : 100 Pcs  
Product Description : Effective Particle Filtering Mask-Earloop  
Colour : White  
Model No. : TF-003  
Lot No./Batch code : 2503202011  
Country of Origin : China  
Sales Destination(country) : Europe/USA  
Classification : FFP2 NR

**Sample obtaining method:** Sending by customer

**Sample receiving date:** 2020-04-08  
**Delivery condition:** Apparent good, Samples tested as received  
**Test Period:** 2020-04-08 to 2020-04-29

**Test specification:**  
Particulate respirator/half facepiece  
**EN149:2001 + A1:2010** Respiratory protective devices - Filtering half masks to protect against particles - Requirements, testing, marking

**For and on behalf of**  
TUV Rheinland / CCIC (Qingdao) Co., Ltd.

2020-04-30 Alex Zhou / Senior Manager

*Alex Zhou*

TUV Rheinland / CCIC (Qingdao) Co., Ltd. · 6F, No.2 Bldg., No.175 Zhuzhou Rd., Qingdao 266101, Shandong, P.R. China  
Tel.: +86-532-8870 6655 · Fax: +86-532-8870 6669 · Email: info@qd.chn.tuv.com · Web: www.tuv.com

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Location  
White folding mask

tested

It completely to verify compliance with the clause. Refer to the 'result details' section for more information.

early termination following failure.

ices—Filtering half masks to protect against particles—  
**NRq**

and handling and wear over the period for assigned to be used.

ted in 8.3.1 none of the particle filtering at failure of the facepiece or straps.

8.3.1 and 8.3.2 the particle filtering half

sed by the air flow through the filter shall le winter.

accordance with 8.3.1, None of the specimens lapse.  
 accordance with 8.3.2, None of the specimens

igned to be re-usable, the materials used reflecting agents and procedures to be

and disinfecting the re-usable particle ation requirement of the relevant class.

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undergo practical performance tests under

Subject  
ZHM  
SM

contact with the wearer shall have no sharp limited laboratory testing undertaken showed the

ted in accordance with the manufacturer's individual exercise results (i.e. 10 subjects x 5 all be not greater than: 25% for FFP1, 11% for

10 individual wearer arithmetic means for the ster than: 22% for FFP1, 8% for FFP2, 2% for e results were not greater than 11%, 8 out of the 10 e not greater than 6%. Detailed data are showed

-A Inward leakage test data

Head Side(side)(%)	Head Up/down(%)	Talk(%)	Walk(%)	Mean(%)
8.4	12.7	9.4	2.3	7.9
12.6	10.0	7.2	6.4	8.8
13.4	6.2	6.7	4.9	7.8
7.6	6.0	4.2	5.0	5.9
20.8	9.6	8.8	8.0	10.6
9.8	7.7	5.5	6.5	7.7
10.4	8.7	5.2	6.1	6.8
6.2	9.5	6.9	1.4	5.7
8.3	10.0	8.6	4.1	6.3
4.5	7.0	5.0	2.1	5.3

11 8

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9.1-8 Facial dimension

Face width(mm)	Face Depth(mm)	Mouth Width(mm)
157	119	50
136	105	56
151	106	48
146	102	51
151	110	52
147	101	65
144	109	49
157	124	44
147	108	53
152	109	59

particle filtering half mask shall meet the

est 95 l/min Paraffin oil test 95 l/min

Penetration (%)	Max. during exposure
≤ 20%	
≤ 6%	
≤ 1%	

Penetration of filter material

Sample No.	Penetration (%)	Assessment
-14	0.37	PASS
-15	3.90	
-16	2.48	
-49	1.09	
-50	0.85	
-51	4.62	
-38	1.47	
-39	2.53	
-40	3.96	
-11	0.44	
-12	1.43	
-13	0.88	
-52	3.95	
-53	3.76	
-54	5.94	
-41	0.93	
-42	1.40	
-43	3.37	

6

Single filter: 95.0 l/min

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Penetration of filter material

Sample No.	Penetration (%)	Assessment
-14	0.37	PASS
-15	3.90	
-16	2.48	
-49	1.09	
-50	0.85	
-51	4.62	
-38	1.47	
-39	2.53	
-40	3.96	
-11	0.44	
-12	1.43	
-13	0.88	
-52	3.95	
-53	3.76	
-54	5.94	
-41	0.93	
-42	1.40	
-43	3.37	

6

Single filter: 95.0 l/min

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7.10 Compatibility with skin\*  
Materials that may come into contact with the wearer's skin shall not be known to be likely to cause irritation or any other adverse effect to health.  
Note 6: Specimens from -17 to -21(A,R) and from -44 to -48(T,C) were tested. No irritation or any other adverse effect to health.

7.11 Flammability\*  
When tested, the particle filtering half mask shall not burn or not to continue to burn for more than 5 s after removal from the flame.

Table 7.11- Flammability

Condition	Sample No.	Result	Assessment
A.R.	-29	Burn for 0.9 s	PASS
	-30	Burn for 0.8 s	
T.C.	-22	Burn for 0.5 s	
	-23	Burn for 0.6 s	

7.12 Carbon dioxide content of the inhalation air\*  
The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0 % (by volume).

Table 7.12- Carbon dioxide content of the inhalation air

Condition	Sample No.	Result	Assessment
A.R.	-17	0.45%	PASS
	-18	0.46%	
	-19	0.45%	
Maximum permitted		1.0%	

7.13 Head harness\*  
The head harness shall be designed so that the particle filtering half mask can be donned and removed easily.  
The head harness shall be adjustable or self-adjusting and shall be sufficiently robust to hold the particle filtering half mask firmly in position and be capable of maintaining total inward leakage requirements for the device.  
Note 7: Specimens from -24 to -28(A,R) and from -44 to -48(T,C) were tested. Head harness can be donned and removed easily, adjustable or self-adjusting and have sufficiently robust to hold the face mask firmly. The product satisfied the total inward leakage requirement. See 7.3.1 for results.

7.14 Field of vision\*  
The field of vision is acceptable if determined so in practical performance tests.  
Note 8: Specimens from -31 and -32(A,R) were tested. Pass the practical performance tests and no adverse comments.

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one or more exhalation valve(s), which shall be protected against or be resistant to dirt sprayed or may include any other device that ring half mask to comply with 7.5.

ntinue to operate correctly after a continuous flow of 30 s.

is attached to the faceblank, it shall withstand for 10 s.

imum permitted resistance (mbar)

95 l/min	160 l/min or 25 cycles/min x 2.0 l/stroke
2.1	3.0
2.4	3.0
3.0	3.0

ult are shown in below Table.

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Breathing resistance (mbar)

Exhalation resistance(mbar)			
Breathing machine(25 cycles/min x 2.0 l/stroke)			
A	B	C	E
232	233	236	231
243	238	236	237
276	269	266	264
224	236	228	229
243	241	236	236
236	231	227	227
284	258	261	254
257	248	244	249
271	268	273	268

3.0

C: facing vertically downwards; D: lying on the left side; E: lying on

ess shall not exceed:  
7 mbar at 95 l/min continuous flow;  
3 mbar at 160 l/min continuous flow.

ation resistances shall not exceed:  
5 mbar at 95 l/min continuous flow.

est 95 l/min Paraffin oil test 95 l/min

Penetration (%)	Max. during exposure
≤ 20%	
≤ 6%	
≤ 1%	

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clearly and durably marked on the smallest or legible through it if the packaging is means of identification of the manufacturer or

or FFP3) followed by a single space and then; sk is limited to single shift use only. Example: ng half mask is re-usable. Example: FFP2 R D. ation of this European Standard.  
f life. The end of shelf life may be informed by (check prior to use).  
ns likely to be encountered, for example: (check prior to use).  
nts for leakage will be achieved if facial hair on deficiency);  
atmosphere.  
ndations as to when the particle filtering half g shall be given that the particle filtering half one shift.

g with this European Standard shall be clearly means of identification of the manufacturer or

tion of this European Standard.

or FFP3) followed by a single space and then; k is limited to single shift use only. Example: half mask is re-usable. Example: FFP2 R D. ) (dolomite) in accordance with clogging the classification marking preceded by a single ts with considerable bearing on safety shall be

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manufacturer\* accompany every smallest; nufacturer shall be at least in the official language(s) manufacturer shall contain all information reons on

of any colour coding; checks prior to use; cleaning, disinfecting); if applicable; storage; ms used of the equipment.  
comprehensible, if helpful, illustrations, part ms likely to be encountered, for example: (check prior to use).  
nts for leakage will be achieved if facial hair on deficiency);  
atmosphere.  
ndations as to when the particle filtering half g shall be given that the particle filtering half one shift.

ected to the lab China Academy of Safety Science and nt of ISO/IEC 17025:2017, the registration No. CNAS L0118.

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# CE Qualification



**UNIVERSAL CERTIFICATION**  
NB 2163

## EU TYPE EXAMINATION CERTIFICATE

Certificate No: 2163 - PPE - 674

Respiratory protective devices, filtering half masks to protect against particles manufactured by **TENGFEI TECHNOLOGY CO., LTD**  
No. 111, Tongqiu Road, Zhangpu Town, Kunshan City, Jiangsu Province, CHINA  
are tested and evaluated according to

**EN 149:2001 + A1:2009 Respiratory Protective Devices - Filtering Half Masks to Protect Against Particles - Requirements, Testing, Marking**

Based on the type examination conducted with the evaluation of test reports, technical file to Personal Protective Equipment Regulation (EU) 2016/425 Annex 5, it is approved that the product meets the requirements of the regulation.

**Product Definition**  
Model : TF-9006  
Filtering half mask  
Total Inwards Leakage: Class – FFP2

**Product Definition**  
Model : TF-9006  
Filtering half mask  
Total Inwards Leakage: Class – FFP2

The manufacturer is allowed to use notified body number (2163) and can fix CE mark, as shown below, on the Category III product models given above, with:

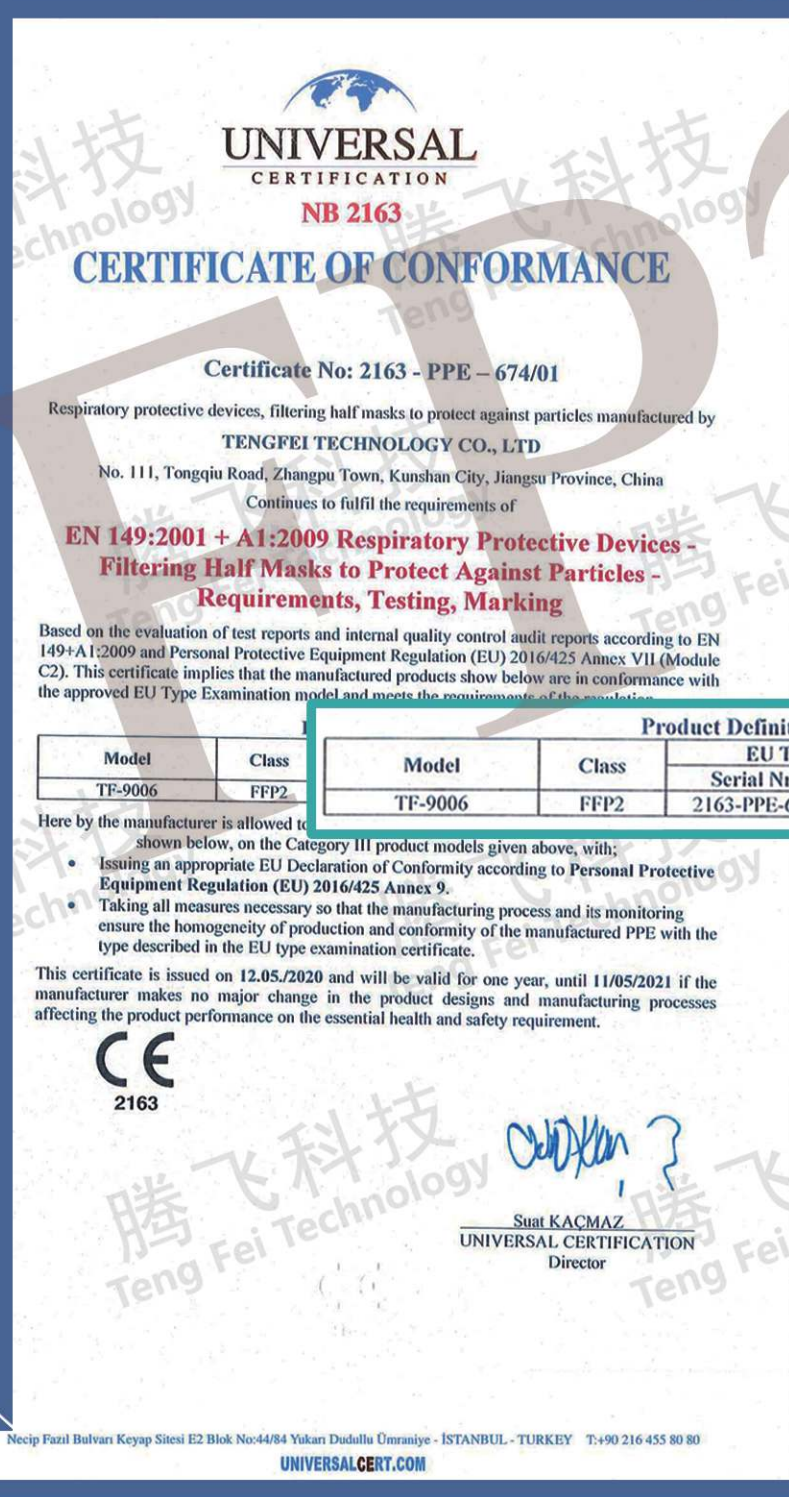
- Issuing an appropriate EU Declaration of Conformity according to Personal Protective Equipment Regulation (EU) 2016/425 Annex 9.
- Ongoing successful performance in fulfilment of the requirements set out in Personal Protective Equipment Regulation (EU) 2016/425 and harmonised standards, ensured by assessments based on Annex 7 (Module C2) or Annex 8 (Module D) of the regulation no later than 1 year from the beginning of serial production

This certificate is initially issued on 12 / 05 /2020 and will be valid for 5 years, if there is no change in the relevant harmonised standard affecting the essential health and safety requirements.

**CE 2163**

Suat KACMAZ  
UNIVERSAL CERTIFICATION  
Director

Necip Fazıl Bulvarı Keyap Sitesi E2 Blok No:44/84 Yukarı Dudullu Ümraniye - İSTANBUL - TÜRKİYE T:+90 216 455 80 80  
UNIVERSALCERT.COM



**UNIVERSAL CERTIFICATION**  
NB 2163

## CERTIFICATE OF CONFORMANCE

Certificate No: 2163 - PPE - 674/01

Respiratory protective devices, filtering half masks to protect against particles manufactured by **TENGFEI TECHNOLOGY CO., LTD**  
No. 111, Tongqiu Road, Zhangpu Town, Kunshan City, Jiangsu Province, China  
Continues to fulfil the requirements of

**EN 149:2001 + A1:2009 Respiratory Protective Devices - Filtering Half Masks to Protect Against Particles - Requirements, Testing, Marking**

Based on the evaluation of test reports and internal quality control audit reports according to EN 149+A1:2009 and Personal Protective Equipment Regulation (EU) 2016/425 Annex VII (Module C2). This certificate implies that the manufactured products show below are in conformance with the approved EU Type Examination model and meets the requirements of the regulation.

Model		Class		EU Type Examination Certificate		
Model	Class	Serial Nr.	Date	Issuing NB Nr.		
TF-9006	FFP2	2163-PPE-674	12.05.2020	2163		

Here by the manufacturer is allowed to use notified body number (2163) and can fix CE mark, as shown below, on the Category III product models given above, with:

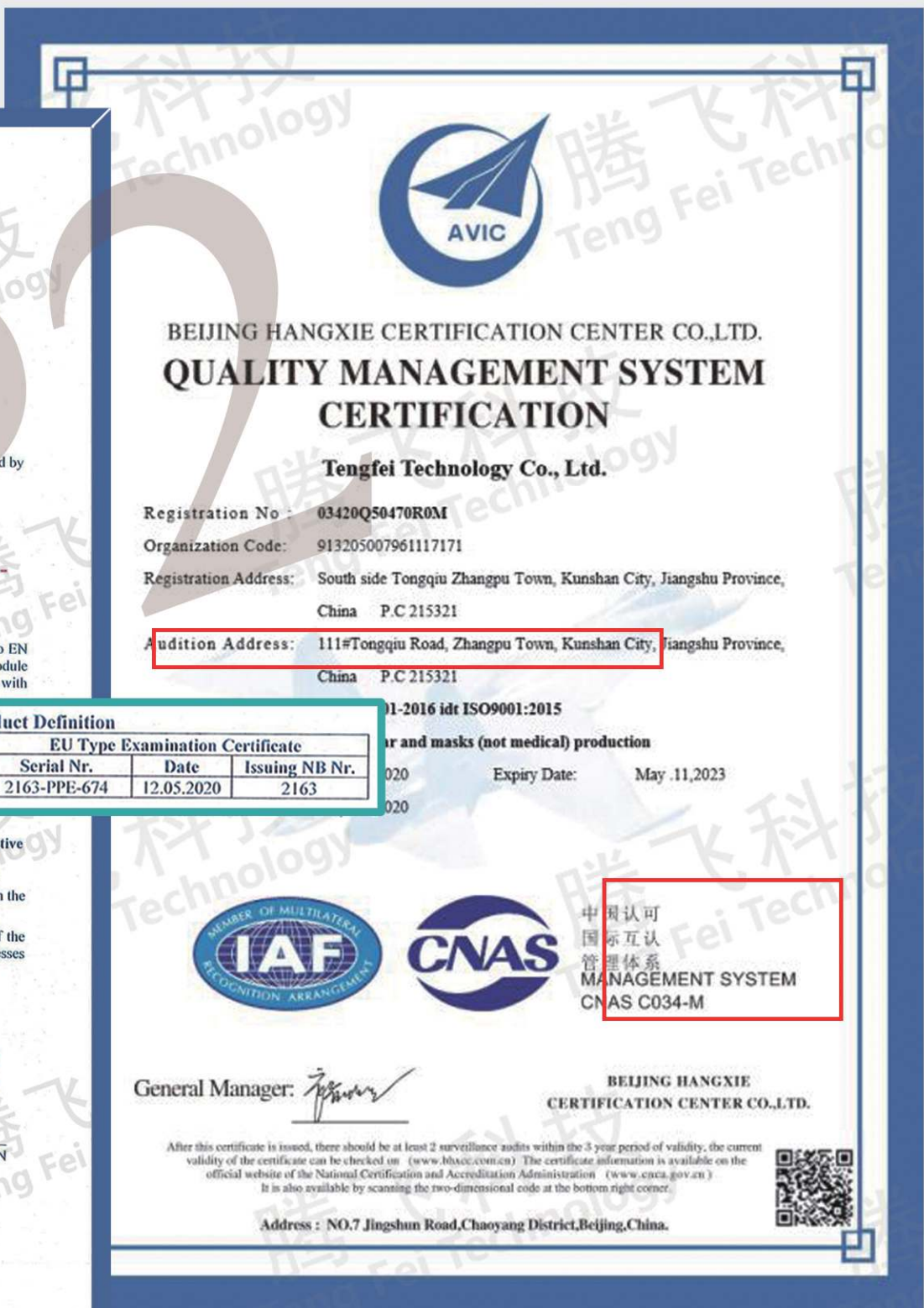
- Issuing an appropriate EU Declaration of Conformity according to Personal Protective Equipment Regulation (EU) 2016/425 Annex 9.
- Taking all measures necessary so that the manufacturing process and its monitoring ensure the homogeneity of production and conformity of the manufactured PPE with the type described in the EU type examination certificate.

This certificate is issued on 12.05./2020 and will be valid for one year, until 11/05/2021 if the manufacturer makes no major change in the product designs and manufacturing processes affecting the product performance on the essential health and safety requirement.

**CE 2163**

Suat KACMAZ  
UNIVERSAL CERTIFICATION  
Director

Necip Fazıl Bulvarı Keyap Sitesi E2 Blok No:44/84 Yukarı Dudullu Ümraniye - İSTANBUL - TÜRKİYE T:+90 216 455 80 80  
UNIVERSALCERT.COM



**AVIC**

BEIJING HANGXIE CERTIFICATION CENTER CO.,LTD.  
**QUALITY MANAGEMENT SYSTEM CERTIFICATION**  
Tengfei Technology Co., Ltd.

Registration No : 03420Q50470R0M  
Organization Code: 913205007961117171  
Registration Address: South side Tongqiu Zhangpu Town, Kunshan City, Jiangsu Province, China P.C 215321  
Audition Address: 111#Tongqiu Road, Zhangpu Town, Kunshan City, Jiangsu Province, China P.C 215321

01-2016 idt ISO9001:2015  
for and masks (not medical) production  
020 Expiry Date: May .11,2023  
020

**IAF** **CNAS** 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C034-M

General Manager: [Signature]

BEIJING HANGXIE CERTIFICATION CENTER CO.,LTD.

After this certificate is issued, there should be at least 2 surveillance audits within the 3-year period of validity, the current validity of the certificate can be checked on (www.bhacc.com.cn) The certificate information is available on the official website of the National Certification and Accreditation Administration (www.cnca.gov.cn) It is also available by scanning the two-dimensional code at the bottom right corner.

Address : NO.7 Jingshun Road,Chaoyang District,Beijing,China.

# EU DECLARATION OF CONFORMITY

## EU DECLARATION OF CONFORMITY

No: TF/PPE-P2-9006

Name and address of the manufacturer:

**Tengfei Technology Co, Ltd**  
No. 111, Tongqiu Road,  
Zhangpu Town, Kunshan City, Jiangsu

**Tengfei Technology Co, Ltd**  
No. 111, Tongqiu Road,  
Zhangpu Town, Kunshan City, Jiangsu Province, China

declares that the new PPE described hereafter

Product Name:

**Effective Particle Filtering mask**

Product Photograph:



Type/Class:

**FFP2 NR**

Model/REF:

**TF-9006**

Serial Number.:

**2163-PPE-674**

Type/Class:

**FFP2 NR**

Model/REF:

**TF-9006**

Serial Number.:

**2163-PPE-674**

The object of the declaration described in point 4 is in conformity with the relevant Union harmonisation legislation:

Regulation (EU) 2016/425

References to the relevant harmonised standards:

EN 149:2001+A1:2009 Respiratory protective devices – Filtering half masks to protect against particles – Requirements, testing, marking.

The notified body Universal (NB: 2163) performed the EU type-examination (Module B) and issued the EU type-examination certificate: **MODULE B 2163-PPE-674**

**MODULE B 2163-PPE-674**

The PPE is subject to the conformity assessment procedure: CONFORMITY TO TYPE BASED ON INTERNAL PRODUCTION CONTROL PLUS SUPERVISED PRODUCT CHECKS AT RANDOM INTERVALS (Module C2) under surveillance of the notified body Universal (NB: 2163).

Signed for and on behalf of

Company:

*Tengfei Technology Co. Ltd*

General Manager:

*Binyang Chang*

Signature

Place & Date:

Kunshan, China May 20, 2020



# EFFECTIVE

## Effective aerosol filtering Masks

Penetration of filter  
material(Sodium chloride)  $\leq 6\%$

Penetration of filter  
material(Paraffin oil)  $\leq 6\%$

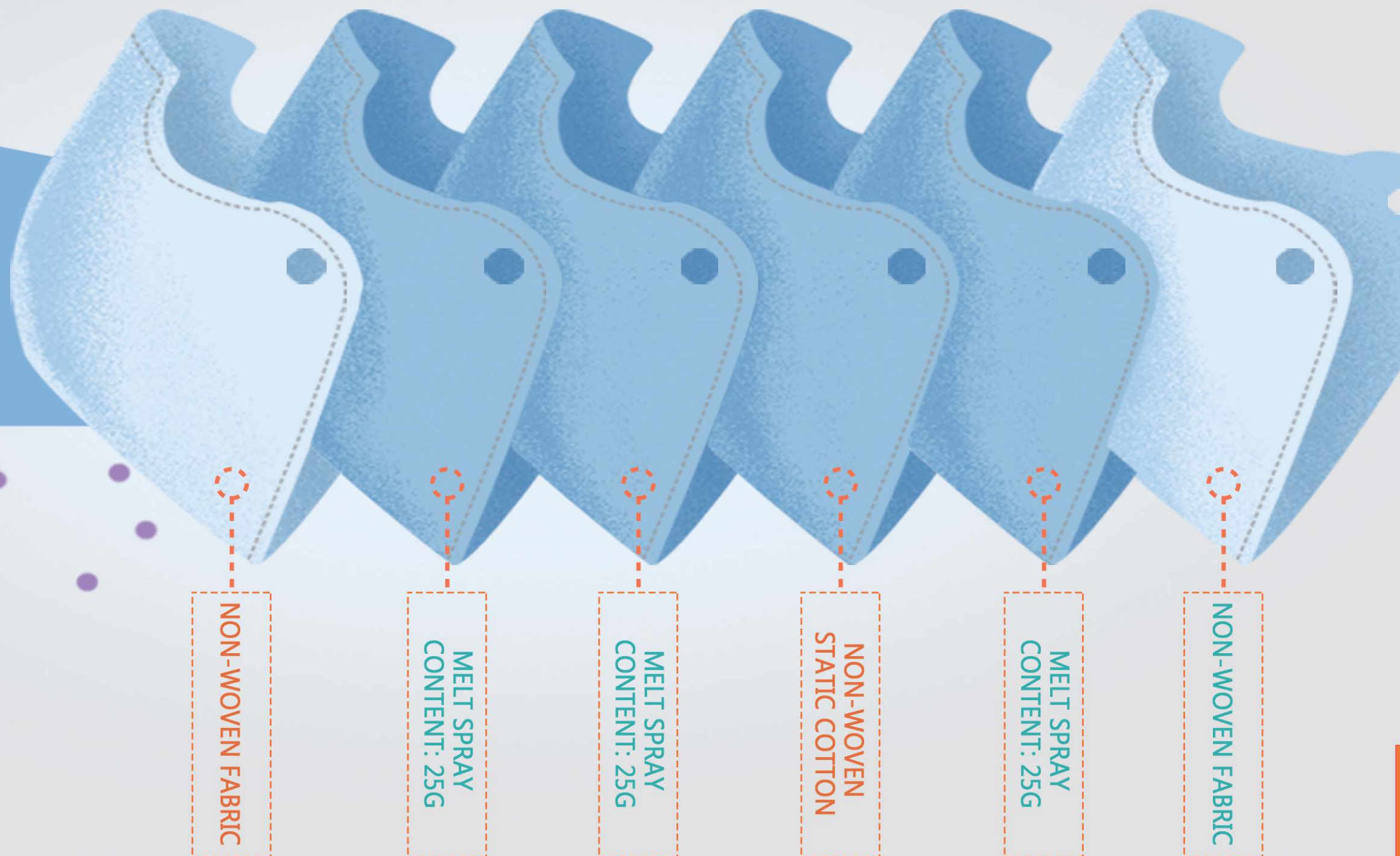
The total inward leakage rate  
is qualified



# THE KEY MATERIAL OF THE PRODUCT

## SIX LAYERS FILTERING, MULTI-LAYERS OF PROTECTION

The Penetration rate of FFP2 is  $\leq 6\%$ , protect yourself and others effectively



Inhalation 30L/min  
 $\leq 0.7$

Inhalation 95L/min  
 $\leq 2.4$

Exhalation 160L/min  
 $\leq 3.0$

Penetration of filter material  
 $\leq 6\%$

# FFP2

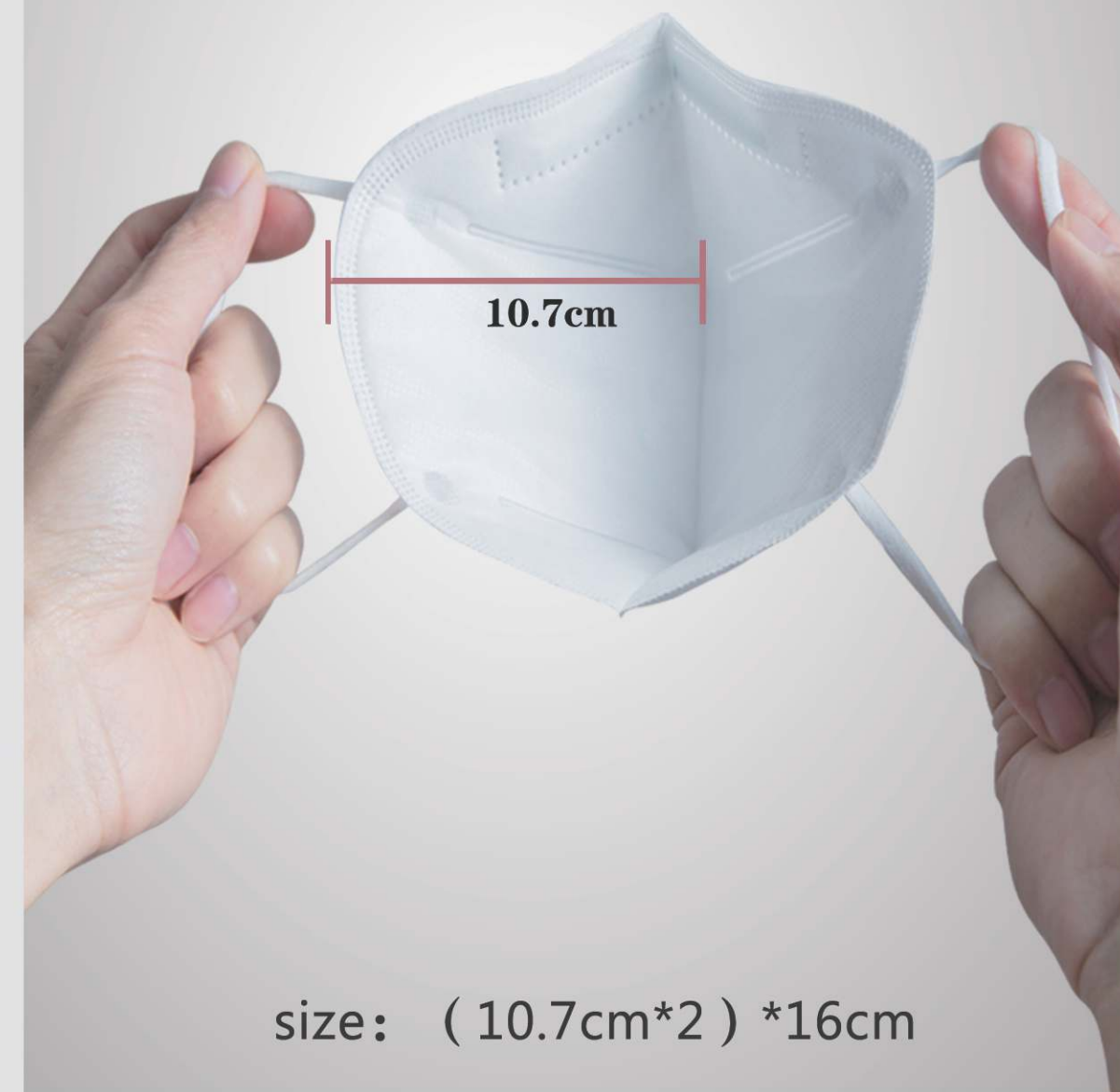
## ERGONOMIC DESIGN

3D cutting, design based on face curve, fit face closely



## SOFT INSIDE LAYER

soft and skin-friendly non-woven fabric, low sensitivity and non-irritating





# DETAIL:



01

Fit Seamlessly  
Anti-fog

Fit face seamlessly  
Improve the protective performance



03

Adjustable  
nasal clip

Fit face perfectly, steady and stable



02

Fold in half,  
easy gathering

Glueless bonding,  
durable, 3D shape



04

Elastic ear loop

Flexible and stretchable,  
painless after long-time wearing



# CARTON PACKING SPECIFICATION



**42CM**

**60CM**

**48CM**

## Carton size

**60\*48\*42CM**

**4boxes\*5boxes\*3floor**

**M<sup>3</sup>: about 0.12096m<sup>3</sup>**



## Packing specification

**60boxes 1200pcs**

**N.W: 10KG**

**G.W: 12KG**

# BOX PACKING SPECIFICATION



**Box size**

**14.5\*9\*13CM**

**20pcs/box**



145mm

**Effective**  
Particle Filtering Mask  
-Earloop

**Model:** TF-9006

90mm

90mm

90mm

145mm

**Instructions**

**Protective Breathing Mask**

**Category:** disposable, no air valve, ear wearing.

**Spec:** 20 pcs, average size.

**Material:** non-woven fabric, Hot-Air Cotton, meltblown, non-woven fabric

**Lot:**

**Production date:**

**Shelf life:** 3 years

**Execution Standard:**  
EN149:2001+A1:2009 FFP2 NR

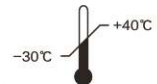
**Storage condition :**  
Avoid direct sunlight, humidity<80%, no corrosive gas, store in the clean room with good ventilation.

**Manufacturer:**  
Tengfei  
Technology  
Co.,Ltd.

**Address:** No.111 Tongqiu  
Road, Zhangpu Town, Kunshan  
City, Jiangsu Province.  
**MADE IN CHINA**



See the information provided by the manufacturer



The temperature range of storage conditions



Maximum relative humidity of storage conditions



**FFP2**

**Effective**  
Particle Filtering Mask  
-Earloop



Particulate matter filtration



Skin-friendly

**20 PCS**



**CE 2163**

**Matters needing attention and warnings**

**Matters needing attention**

- 1 Check the appearance before using, please do not use when it is damaged or soiled.
- 2 Do not wash, heat or disinfect the mask.
- 3 Do not touch the inside layer of the mask when taking off to avoid pollution.
- 4 Do not use when there is not enough oxygen or in poisonous gas.
- 5 Change the mask when it has been damaged or has undesirable odor.
- 6 Not suitable for: 1)Individuals with a compromised respiratory system, such as asthma or emphysema. 2)Elders or patients who cannot express their body condition or control their own hands freely.
- 7 Recommended usable life for each mask is 4 hours.

**Warnings**

- 1 Wearing the mask incorrectly will fail to achieve the protective effect.
- 2 Take off it when you feel sick or there is strong irritating odor.

**Wearing instruction**

Wear the mask according to the instructions below to achieve the best protective effect.

- 1 1.Take out the mask, do not touch the inside layer.
- 2 2.Unfold the mask and put it on your face.
- 3 3.Adjust the strap on both sides of the mask to your ears.
- 4 4.Adjust the nasal splint position.



**FFP2**

**Effective**  
Particle Filtering Mask  
-Earloop



Particulate matter filtration



Skin-friendly

**20 PCS**



**CE 2163**



# Tengfei Technology Melt-blown Production Line

Put into production immediately

Save time and effort

Professional **FFP2**  
Melt-blown Production  
Equipment

**PFE99** Melt-blown materials

Daily output: **2.5 tons**

**High quality**

**High speed**

**High capacity**





## Production environment





## COMPANY ENVIRONMENT

Tengfei Technology, Technology Cares Beauty

Tengfei Technology was founded in 1997, is a global leading company driven by innovation technology. With the mission to become a technology company, we have owned a variety of patent technologies at present. Through the perfect combination between new material and creative craft, a new kind of bonding technology was published for the customers. And through the new technology and aesthetics' redefinition and application, Tengfei will create more high-end smart products which can meet the requirements of consumption upgrade in future.