





# FFP2 CE0370 EN 149:2001+A1:2009







## FFP2 CE0370 EN 149:2001+A1:2009



## anti-virus, anti dust, anti droplets etc.

## **FEATURES**

Ergonomic design, comfortable and good protection; Adjustable ear loop, no hurt to ears; With valve, easy breath High filtration efficiency Material:non-woven fabrics/Meltblown fabric/ mask belt

## DATASHEET

## **FACE MASKS**

PROTECTION AGAINST PRCERTAIN AIRBORNE PARTCLES AND DUST, BLOCK BODY FLUIDS AND SO ON.

## **INSTRUCTIONS FOR USE**

Product Name: Protective Mask

Models: KDD1001

FFP2 NR defined in EN 149:2001+A1:2009

Size: 10.9\*16cm(±0.5cm) EN 149:2001+A1:2009

## Indications For Use:

The protective mask is intended used for protection against solid and oily particulates, liquid and microorganisms such as coal dust, cement dust, acid fog, paint fog, oil smoke, oil mist, asphalt smoke, coke oven smoke etc. Single-use.

### Limitations

a.Not suitable for working places where open flames exist (such as welding,casting,etc,);

b.It is not suitable for professional protective use such as oxygen deficient, toxic gas environment.

c.No medical use.

## Checks prior to use

Please check whether the packaging is damaged, whether the mask body is damaged, deformed or has other obvious defects before use.

## Fitting

a. Open the mask evenly

b.Face the facet of the mask without the nose clip,position the nose clip above the mask

c.Pull the earband behind the ear

d.In the middle of the nose clip, press inward from the middle to the sides according to the shape of the bridge until it is completely pressed into the shape of the bridge of the nose, the mask's tightness may be affected if the nose clip is held with only one hand

e.Check the mask for tightness with the face





## DATASHEET

## **FACE MASKS**

PROTECTION AGAINST PRCERTAIN AIRBORNE PARTCLES AND DUST, BLOCK BODY FLUIDS AND SO ON.



## Use cautions:

- a) Please check fit of mask prior to use;
- b) It is unlikely that the requirements for leakage will be achieved if facial hair passes under the face seal;
- c) Please do not use the mask under low air quality condition, such as serious contaminants in air, oxygen deficiency;
- d) Do not use the mask in explosive atmosphere;
- e) After use, please discard the mask following local regulation; f) The mask is only for single use, do not use repeatedly.

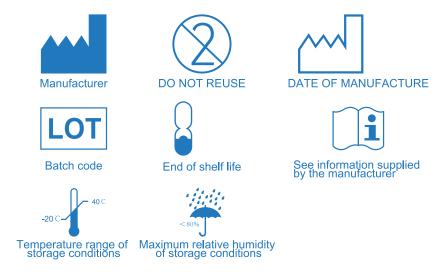
## **Storage Condition:**

The product should be stored in a well ventilated, dark and dry environment. Keep away from fire, pollutants and possible pollution sources. Also, the transport storage 's temperature: -20°C~40°C, relative humidity: <80%RH.

## Shelf-Life:

The Protective Mask is valid for 3 years with the above storage condition.

## Symbol on the label:





## DATASHEET

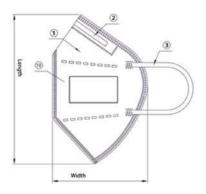
## **FACE MASKS**

PROTECTION AGAINST PRCERTAIN AIRBORNE PARTCLES AND DUST, BLOCK BODY FLUIDS AND SO ON.



## Product model and structure

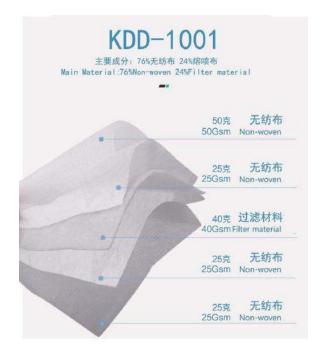
Product structure
The Professional Protective Mask consists of mask body, nose piece and ear straps.



- ① Mask body
- ② Nose piece
- ③ Ear straps⑩ marking

Length: 16cm±0.5cm Width: 10..9cm±0.5cm

Figure 1 The mask drawing
Figure 2 Structure of mask body (1)





## DATASHEET FACE MASKS

PROTECTION AGAINST PRCERTAIN AIRBORNE PARTCLES AND DUST, BLOCK BODY FLUIDS AND SO ON.



## **Materials of product:**

Table 1 Materials and Specifications unit:cm

Components	Materials	Specification: L × W
Nose piece	white PE, silver coated iron wire+sponge	8.5CM (±0.3CM) × 0.5CM (±0.05CM)
Ear straps	Nylon, spandex	18.5CM (±0.5CM)× 0.5CM (±0.05CM)
Mask body	Non-woven , Filter material	16CM(±0.5cm)× 10.9CM (±0.5cm)

















## Type II Face Masks

When to specify a respirator or a face mask and selecting the right Type II mask

This advice has been written to assist in the selection of face masks and respirators to ensure that the higher levels of protective equipment are issued only where necessary. This will avoid critical supplies being diverted and will enable them where they are most needed.



## Step 1: Determine the protection required

Assess the hazardous substance in the environment and the level of risk posed to workers, this will include the risk of exposure to viral infection. Issue the most appropriate personal protective equipment (PPE) to minimise that risk. If full respiratory protection is not required, then a face mask will be a more suitable alternative.

See the guide to the differences between and the use of face masks and respirators on page 2.

## Step 2: Determine whether a Type II or Type IIR face mask is required

Medical face masks are recommended as a means of source control, i.e. they decrease the transmission of a virus by preventing the spread of respiratory droplets produced by coughing or sneezing.

**Medical face masks are classified into two types:** Type I and Type II according to their Bacterial Filtration Efficiency (BFE). The BFE determines the amount of infective agent retained by the facemask and therefore directly relates to the amount of bacteria released through the mask and into the environment.

Type II masks are further divided according to their Splash Resistance Pressure which determines the mask's resistance level to potentially contaminated fluid splashes.

- > A Type IIR mask is splash resistant, the letter 'R' signifies splash resistance.
- > A Type II mask is not splash resistant.

Splash resistance is required in clinical settings to protect the wearer against splashes of blood or bodily fluids.

See the guide to the differences between Type II and Type IIR Face Masks on page 3.

## The Difference Between Face Masks and Respirators

### Face Mask



A loose-fitting disposable mask that creates a physical barrier between the wearer's nose and mouth and contaminants. Also known as medical or surgical masks they are classifed as Type I, Type II or Type IIR

## Respirator

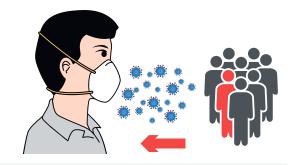


A respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles. Also known as Filtering Face Piece and classified as FFP1, FFP2, or FFP3.

### Use

**PREVENTS** wearer's respiratory droplets contaminating other persons & surfaces. Fluid splash resistant masks can also protect the wearer against large droplets or sprays of hazardous fluids

**PROTECTS** wearers by reducing their risk of inhaling hazardous airborne particles in the environment including small particle aerosols and droplets



### Fit

## **Loose Fitting**

Fits loosely over the face. The edges of the mask are not designed to seal fully around the nose and mouth



## **Tight Fitting**

Fits tightly to the face and creates a seal between the face and respirator



## Face Fit Testing

No, but donning and doffing protocols should be observed

Yes. Plus, a user seal check is required each time the respirator is put on. Also donning and doffing protocols should be observed

## Use in Health Care

- In cohorted areas (but no patient contact)
- ➤ Close patient contact (within one metre)¹
- Sessional use in a specific clinical care setting or exposure environment<sup>2</sup>
- When carrying out aerosol generating procedures (AGP) on a patient with possible or confirmed COVID-19
- In high risk areas where AGPs are being conducted

## Use in Industry

Not currently recommended but could be considered:

Certain workplaces and professions that involve physical proximity to many other people In any environment where a risk assessment has identified a hazardous substance and specified the use of a FFP3 or FFP2 respirator

## Use in Community Settings

Not currently recommended but could be considered:

- > When using public transport
- When visiting busy, closed spaces, such as grocery stores, shopping centres, etc.
- See <sup>3</sup> WHO advice for decision makers about the use of masks in community settings

It is not recommended that the general public wear respirators to protect themselves from respiratory diseases, including coronavirus (COVID-19). These are critical supplies that must continue to be reserved for health care workers and other medical first responders

## Differences between and recommended use for Type II and Type IIR Face Masks

## Type II Masks

**Suitable for:** General activities where there is no risk of exposure to blood and/or body fluid and unlikely exposure to viruses



## Type IIR Masks

Those with a genuine need for splash resistance in situations with risk of fluid contamination and viruses



## Use in **Health Care**

- Enhancing infection control
- Preventing the risk of cross-contamination
- Low-risk clinical applications that do not involve blood-borne pathogens or bodily fluids
- In cohorted areas (but no patient contact)
- Close patient contact (within one metre)1
- Sessional use in a specific clinical care setting or exposure environment 2
- Ambulance crews
- Care home staff

## Use in Industry

Not currently recommended but could be considered:

- For certain workplaces and professions that involve physical proximity to many other people
- Prison officers
- Police or security (those in close proximity to Covid 19 cases)

## Use in Community **Settings**

Not currently recommended for general use but could be considered:

- When using public transport
- When visiting busy, closed spaces, such as grocery stores, shopping centres, etc.
- See <sup>3</sup> WHO advice for decision makers about the use of masks in community settings

It is not recommended that the general public wear Type II R Medical Masks (B441896) to protect themselves from respiratory diseases, including coronavirus (COVID-19). These are critical supplies that must continue to be reserved for health care workers and other medical first responders

<sup>&</sup>lt;sup>1</sup>NHS England - When to wear a face mask or a FFP3 Respirator

www.rdash.nhs.uk/wp-content/uploads/2017/08/Appendix-47-Surgical-Face-Mask-FFP3.pdf

<sup>&</sup>lt;sup>2</sup> Public Health England - COVID-19 personal protective equipment (PPE)

www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-personal-protective-equipment-ppe

<sup>&</sup>lt;sup>3</sup>World Health Organisation - Advice on the use of masks in the context of COVID-19





## CERTIFICADO DE EXAMEN UE DE TIPO EU-TYPE EXAMINATION CERTIFICATE



No

0370-4251-PPE/B

ORGANISMO NOTIFICADO Nº NOTIFIED BODY NUMBER	0370 - LGAI TECHNOLOGICAL CENTER (APPLUS)		
SOLICITANTE APPLICANT	Qingdao KANGDUODUO Protective Equipment Co.,Ltd West of Sili Village,Lancun Town,Jimo District,Qingdao City,Shandong Province,China.		
FABRICANTE MANUFACTURER	Qingdao KANGDUODUO Protective Equipment Co.,Ltd  West of Sili Village,Lancun Town,Jimo District,Qingdao City,Shandong Province,China.		

REGLAMENTO DE APLICACIÓN PARA DAR LA CONFORMIDAD / APPLICABLE REGULATION TO GIVE CONFORMITY:

REGLAMENTO (UE) 2016/425 SOBRE LOS EQUIPOS DE PROTECCIÓN INDIVIDUAL

REGULATION (FU) 2016/425 PERSONAL PROTECTIVE FOLITPMENT

REGULATION (EU) 2010/425 FERSONAL PROTECTIVE EQUIPMENT			
PROCEDIMIENTO DE EVALUACIÓN DE LA CONFORMIDAD  CONFORMITY ASSESSMENT PROCEDURE	Módulo // Module: B  EXAMEN UE DE TIPO / EU TYPE EXAMINATION		
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: KDD1001 Protective Mask		
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI / PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR		
NORMAS ARMONIZADAS / HARMONISED STANDARDS	EN 149:2001 + A1:2009 Dispositivos de protección respiratoria. Medias máscaras filtrantes de protección contra partículas. Requisitos, ensayos, marcado.  EN 149:2001 + A1:2009 Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking		
FECHA DE EMISIÓN / ISSUE DATE	25/08/2020		
VALIDEZ HASTA / VALIDITY UNTIL	25/08/2025		

El presente certificado se mantendrá vigente durante 5 años siempre que el producto descrito no sea modificado y cumpla los requisitos esenciales de salud y seguridad establecidos en el Reglamento (UE) 2016/425. Para asegurar dicho cumplimiento, este certificado deberá ir acompañado de la documentación correspondiente a la Evaluación de Conformidad con el tipo según módulo C2, D (realizada por un Organismo Notificado, según frecuencia establecida).

This certificate will remain valid for 5 years as long as the indicated product is not modified and fulfills the essential requirements of health and safety established in (EU) Regulation 2016/425. To ensure such compliance, this certificate must be accompanied by the documentation corresponding to the Conformity Assessment to type according to C2, D(carried out by a Notified Body according, to the established frequency).



Xavier Ruiz Peña

Managing Director, Product Conformity B.U.

Este documento carece de validez sin su anexo técnico, cuyo número coincide con el del certificado. This document is not valid without its technical annex, whose number coincides with the number of certificate.

Puede comprobarse la validez de este certificado en nuestra página web / You can check the validity of this certificate into our website at: www.appluslaboratories.com/certified\_products



LGAI Technological Center, S.A. (APPLUS) Campus UAB – Ronda de la Font del Carme, s/n E - 08193 Bellaterra (Barcelona) T +34 93 567 20 00 www.appluslaboratories.com



Technical Annex Ed. 1 25/08/2020

## ANEXO TÉCNICO TECHNICAL ANNEX

0370-4251-PPE/B

## I. MODELOS INCLUIDOS EN EL CERTIFICADO

REFERENCES INCLUDED IN THIS CERTIFICATE

MARCA BRAND	Shining Time
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: KDD1001 Protective Mask
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR
INFORME DE ENSAYO TEST REPORT	PTC20063005801C-EN01V02 issued by Precise Testing & Certification (Guangdong) Co.,Ltd.(PTC)





## CERTIFICADO DE CONFORMIDAD CON EL TIPO CONFORMITY TO TYPE CERTIFICATE



0370-4475-PPE/C2

ORGANISMO NOTIFICADO Nº NOTIFIED BODY NUMBER	0370 - LGAI TECHNOLOGICAL CENTER (APPLUS)
SOLICITANTE APPLICANT	<b>Qingdao KANGDUODUO Protective Equipment Co.,Ltd</b> West of Sili Village,Lancun Town,Jimo District,Qingdao City,Shandong Province,China.
FABRICANTE MANUFACTURER	Qingdao KANGDUODUO Protective Equipment Co.,Ltd West of Sili Village,Lancun Town,Jimo District,Qingdao City,Shandong Province,China.

REGLAMENTO DE APLICACIÓN PARA DAR LA CONFORMIDAD / APPLICABLE REGULATION TO GIVE CONFORMITY:

## REGLAMENTO (UE) 2016/425 SOBRE LOS EQUIPOS DE PROTECCIÓ INDIVIDUAL

REGULATION (EU) 2016/425 PERSONAL PROTECTIVE EQUIPMENT

	Módulo // Module: C2	
PROCEDIMIENTO DE EVALUACIÓN DE LA CONFORMIDAD CON EL TIPO CONFORMITY ASSESSMENT PROCEDURE TO TYPE	BASADA EN EL CONTROL INTERNO DE LA PRODUCCIÓN MÁS EL CONTROL SUPERVISADO DE LOS PRODUCTOS A INTERVALOS ALEATORIOS	
CON ON ITT NOSESSIENT NOCESONE TO THE	BASED ON INTERNAL PRODUCTION CONTROL PLUS SUPERVISED CONTROL OF PRODUCTS AT ALEATORY INTERVALS	
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO)	Ref.: KDD1001	
IDENTIFICATION OF THE PPE (TYPE NUMBER)	Protective Mask	
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI / PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR	
FECHA DE EMISIÓN / ISSUE DATE	23/09/2020	
VALIDEZ HASTA / VALIDITY UNTIL:	23/09/2021	

El presente certificado se mantendrá vigente durante 1 año siempre que no se modifiquen las condiciones establecidas en el Certificado de Examen UE de Tipo referenciado en el Anexo.

This certificate will remain in force for 1 year as long as the conditions established in the EU Type certificate referenced in the annex are not modified.



Managing Director, Product Conformity B.U.

Este documento carece de validez sin su anexo técnico, cuyo número coincide con el del certificado. This document is not valid without its technical annex, whose number coincides with the number of certificate.

Puede comprobarse la validez de este certificado en nuestra página web / You can check the validity of this certificate into our website at: www.appluslaboratories.com/certified\_products





Technical Annex Ed. 1 23/09/2020

## **ANEXO TÉCNICO** *TECHNICAL ANNEX*

0370-4475-PPE/C2

## I. MODELOS INCLUIDOS EN EL CERTIFICADO

REFERENCES INCLUDED IN THIS CERTIFICATE

Nº CERTIFICADO DE EXAMEN UE DE TIPO NR. EU TYPE EXAMINATION CERTIFICATE	0370-4251-PPE/B
EMITIDO POR ISSUED BY	LGAI TECHNOLOGICAL CENTER S.A. (APPLUS) (Organismo notificado nº 0370 / Notified Body nr. 0370).
FECHA EMISIÓN ISSUE DATE	25/08/2020
VALIDEZ HASTA VALIDITY UNTIL	25/08/2025
MARCA BRAND	Shining Time
IDENTIFICACIÓN DEL EPI (NÚMERO DE TIPO) IDENTIFICATION OF THE PPE (TYPE NUMBER)	Ref.: KDD1001 Protective Mask
NIVEL O NIVELES DE RENDIMIENTO O LA CLASE DE PROTECCIÓN DEL EPI / PERFORMANCE LEVEL OR PROTECTION CLASS OF THE PPE	FFP2 NR
INFORME DE ENSAYO DE CONFORMIDAD CON EL TIPO CONFORMITY TO TYPE TEST REPORT	PTC20081000801C-EN01 issued by Precise Testing & Certification (Guangdong) Co.,Ltd.(PTC).



EN 149:2001+A1:2009 protective devices. Filtering half masks to protect against particles.

Requirements, testing, marking

Product: Protective Mask

**Report No.:** PTC20063005801C-EN01V02

Client: Qingdao KANGDUODUO Protective Equipment Co.,Ltd

West of Sili Village, Lancun Town, Jimo District, Qingdao City, Shandong

Client Address:

Province, China.

Manufacturer: Qingdao KANGDUODUO Protective Equipment Co.,Ltd

West of Sili Village, Lancun Town, Jimo District, Qingdao City, Shandong

Province, China.

Contact: YAO DONG

Model(s): KDD1001

Classification: FFP2 NR

**Date of Tests:** 2020.07.06~2020.07.26

Signed for and on Behalf of PTC

Prepare by: Checked by:

Approved by:

Arme

ful lim to



Report No.:PTC20063005801C-EN01V02

Page 2 of 13

## **Summary of assessment**

Issue Date: Aug.20, 2020

Clause	Assessment
7.3 Visual inspection	Not tested
7.4 Packaging	PASS
7.5 Material	PASS
7.6 Cleaning and disinfecting	N/A
7.7 Practical performance	PASS
7.8 Finish of parts	PASS
7.9.1 Total inward leakage	PASS
7.9.2 Penetration of filter material	PASS
7.10 Compatibility with skin	PASS
7.11 Flammability	PASS
7.12 Carbon dioxide content of the inhalation air	PASS
7.13 Head harness	PASS
7.14 Field of vision	PASS
7.15 Exhalation valve	N/A
7.16 Breathing resistance	PASS
7.17 Clogging	N/A
7.18 Demountable parts	PASS
9 Marking	Not tested

### Remark:

PASS: comply with requirement of standard

N/A: not application

Not tested: the clause were not required



## **Test Result:**

Requirement	Test Result	Conclusion
<b>7.3 Visual inspection</b> The visual inspection shall also include the marking and the information supplied by the manufacturer.	Not tested	Not tested
7.4 Packaging 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.	In accordance with the requirement.	Pass
<ul><li>7.5 Material</li><li>Materials used shall be suitable to withstand handling and wear over the period for which the particle filtering half mask is designed to be used.</li><li>Any material from the filter media released by the air flow through the filter shall not constitute a hazard or nuisance for the wearer.</li></ul>	No mechanical failure after undergoing the conditioning described in	Pass
After undergoing the conditioning described in 8.3.1 none of the particle filtering half masks shall have suffered mechanical failure of the facepiece or straps.	8.3.1, No collapse when conditioned in accordance with 8.3.1 and 8.3.2.	
When conditioned in accordance with 8.3.1 and 8.3.2 the particle filtering half mask shall not collapse.		
7.6 Cleaning and disinfecting If the particle filtering half mask is designed to be re-usable, the materials used shall withstand the cleaning and disinfecting agents and procedures to be specified by the manufacturer.	Single shift use only	N/A
7.7 Practical performance The particle filtering half mask shall undergo practical performance tests under realistic conditions	No imperfections	Pass

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7.8	<b>Finish</b>	of	parts
-----	---------------	----	-------

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

Pass

## 7.9.1 Total inward leakage

For particle filtering half masks fitted in accordance with the manufacturer's information, at least 46 out of the 50 individual exercise results (i.e. 10 subjects x 5 exercises) for total inward leakage shall be not greater than 25 % for FFP1, 11 % for FFP2, 5 % for FFP3

FFP2, Test results are shown in Annex A Table 7.9.1-A&B

Pass

and, in addition, at least 8 out of the 10 individual wearer arithmetic means for the total inward leakage shall be not greater than 22 % for FFP1, 8 % for FFP2, 2 % for FFP3.

### 7.9.2 Penetration of filter material

The penetration of the filter of the particle filtering half mask shall meet the requirements of Table 1.

35 35	Sodium chloride test	e test Paraffin oil test 95	
6 6 3	95 l/min	l/min	
FFP1	≤ 20%	≤ 20%	
FFP2	≤ 6%	≤ 6%	
FFP3	≤ 1%	≤ 1%	

FFP2 , Test results are shown in Annex A Table 7.9.2.

**Pass** 

## 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. No irritation or any other adverse effect to health.

**Pass** 

### 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.

Test results are shown in Annex A Table 7.11.

Pass

### 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)

Test results are shown in Annex A Table 7.12.

**Pass** 

7.13 Head harness

Head harness can

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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.

be donned and removed easily, adjustable or self-adjusting and have sufficiently robust to hold the particle filtering half mask firmly.

## 7.14 Field of vision

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

Pass the practical performance tests.

Pass

### 7.15 Exhalation valve

A particle filtering half mask may have one or more exhalation valve(s), which shall function correctly in all orientations.

If an exhalation valve is provided it shall be protected against or be resistant to dirt and mechanical damage and may be shrouded or may include any other device that may be necessary for the particle filtering half mask to comply with 7.9.

No exhalation valve N/A

Exhalation valve(s), if fitted, shall continue to operate correctly after a continuous exhalation flow of 300 l/min over a period of 30 s.

When the exhalation valve housing is attached to the faceblank, it shall withstand axially a tensile force of 10 N applied for 10 s.

### 7.16 Breathing resistance

30 80 85	Maximum permitted resistance (mbar)		
Classification	Classification Inhala		Exhalation
State of the	30 l/min	95 l/min	160 l/min
FFP1	0.6	2.1	3.0
FFP2	0.7	2.4	3.0
FFP3	1.0	3.0	3.0

FFP2. Test results are shown in Annex A Table 7.16.

Dace

7.17 Clogging

7.17.2 Breathing resistance

Single shift use only.

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Valved particle filtering half masks:

After clogging the inhalation resistances shall not exceed:

FFP1: 4 mbar, FFP2: 5 mbar, FFP3: 7 mbar at 95L/min continuous flow The exhalation resistance shall not exceed 3 mbar at 160 L/min

continuous flow

Valveless particle filtering half masks

After clogging the inhalation and exhalation resistances shall not exceed: FFP1: 3 mbar, FFP2: 4 mbar, FFP3: 5 mbar at 95L/min continuous flow

### 7.17.3 Penetration of filter material

	Sodium chloride test	Paraffin oil test 95
	95 l/min	l/min
FFP1	≤ 20%	≤ 20%
FFP2	≤ 6%	≤ 6%
FFP3	≤ 1%	≤ 1%

## 7.18 Demountable parts

All demountable parts (if fitted) shall be readily connected and secured, where possible by hand

Comply

Pass

## 9 Marking

## 9.1 Packaging

The following information shall be clearly and durably marked on the smallest commercially available packaging or legible through it if the packaging is transparent.

- 9.1.1 The name, trademark or other means of identification of the manufacturer or supplier.
- 9.1.2 Type-identifying marking.
- 9.1.3 Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is

re-usable.

Example: FFP2 R D.

- 9.1.4 The number and year of publication of this European Standard.
- 9.1.5 At least the year of end of shelf life. The end of shelf life may be

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Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China. Tel: 86-769-38808222 Fax: 86-769-38826111 http://www.ptc-testing.com

Not tested

Not tested



informed by a pictogram as shown in Figure 12a, where yyyy/mm indicates the year and month.

- 9.1.6 The sentence 'see information supplied by the manufacturer', at least in the official language(s) of the country of destination, or by using the pictogram as shown in Figure 12b.
- 9.1.7 The manufacturer's recommended conditions of storage (at least the temperature and humidity) or equivalent pictogram, as shown in Figures 12c and 12d.
- 9.1.8 The packaging of those particle filtering half masks passing the dolomite clogging test shall be additionally marked with the letter "D". This letter shall follow the classification marking preceded by a single space.

## 9.2 Particle filtering half mask

Particle filtering half masks complying with this European Standard shall be clearly and durably marked with the following:

- 9.2.1 The name, trademark or other means of identification of the manufacturer or supplier.
- 9.2.2 Type-identifying marking.
- 9.2.3 The number and year of publication of this European Standard.
- 9.2.4 Classification

The appropriate class (FFP1, FFP2 or FFP3) followed by a single space and then: "NR" if the particle filtering half mask is limited to single shift use only. Example: FFP3 NR, or "R" if the particle filtering half mask is re-usable. Example: FFP2 R D.

- 9.2.5 If appropriate the letter D (dolomite) in accordance with clogging performance. This letter shall follow the classification marking preceded by a single space.
- 9.2.6 Sub-assemblies and components with considerable bearing on safety shall be marked so that they can be identified.



## **Annex A: Summarization of Test Data**

## Table 7.9.1-A: Inward Leakage Test Data

Test specification: EN 149:2001+A1:2009 Clause 8.5

Subject	Sample No.	Condition	Walk (%)	Head Side/side (%)	Head up/down (%)	Talk (%)	Walk (%)	Mean (%)
Lv	10 00	A.R	5.6	5.2	5.0	4.8	5.0	5.1
Li	2	A.R	4.7	4.3	4.0	4.6	4.2	4.4
Lv	3	A.R	4.7	5.2	5.2	4.5	4.6	4.8
Xu	4	A.R	4.6	4.2	4.0	4.1	4.0	4.2
Ма	5	A.R	3.5	4.6	4.7	5.7	5.4	4.8
Chen	6	T.C	4.5	5.1	5.3	5.6	4.8	5.1
Chen	7	T.C	4.8	4.7	5.2	4.9	4.7	4.9
Zhuo	8	T.C	3.3	3.2	2.8	3.5	2.4	3.0
Chen	9	T.C	3.4	3.0	2.9	3.6	3.1	3.2
Zhang	10	T.C	5.1	4.8	5.2	5.6	4.4	5.0

## Table 7.9.1-B: Facial dimension

Subject	Face Length	Face Width	Face Depth	Mouth Width	
Lv	113	139	104	53	
Li	120	135	112	55	
Lv	81	154	120	54	
Xu	120	150	120	70	
Ма	130	170	130	80	
Chen	110	160	90	40	
Chen	115	145	110	50	
Zhuo	103	146	100	50	
Chen	110	145	95	40	
Zhang	144	4 141 101			

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## Table 7.9.2: Penetration of filter material

Test specification: EN 149:2001+A1:2009 Clause 8.11

Aerosol	Condition	Sample No.	Penetration (%)	Assessment
So the sec of	the store of the store	11	0.32	40 40 4
0 0 0	As received	12	0.24	
Section Sectio		13	0.41	6, 6, 6
A 07 07 07	0, 0, 0, 0, 0, 0,	14	0.33	ر في في ف
Sodium chloride test	Simulated wearing treatment	15	0.17	8. 6. 8
TO TO YOUR		16	0.42	10 90 9
		17	1.50	
	Mechanical strength + Temperature conditioned	18	1.24	6, 6, 6
	Temperature conditioned	19	1.19	FFP2
	6, 5, 6, 5, 6,	20	1.10	Pass
	As received	21	0.88	1 360 310 3
A Part of		22	0.64	- A - A
the star star star	Section Section Section	23	0.54	Sec. Sec. 8
Paraffin oil test	Simulated wearing treatment	24	0.59	0, 0, 0
No No No No No No No No No No No No		25	0.56	8, 8, 8
	1 40 40 40 40 40	26	1.59	40 40 V
	Mechanical strength + Temperature conditioned	27	1.13	
	remperature conditioned	28	0.83	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1



Table 7.11: Flammability

Condition	Sample No.	Result	Assessment
An annahand	29	No burn	6, 4, 5, 5, 5,
As received —	30	No burn	the sic sic sic sic
Towns and the same of the same	31	No burn	Pass
Temperature conditioned —	32	No burn	

Test specification: EN 149:2001+A1:2009 Clause 8.6

## Table 7.12: Carbon dioxide content of the inhalation air

Test specification: EN 149:2001+A1:2009 Clause 8.7

Condition	Sample No.	Re	sult (%)	Assessment
0 10 10 10	33	0.0126	41 15 20 20	0 0 0
As received	34	0.0131	Mean value:	Pass
	35	0.0141	0.013	to be to



## Table 7.16: Breathing resistance (mbar)

Test specification: EN 149:2001+A1:2009 Clause 8.9

	Flow Ra	ite		6),	36	6.	- 60	6.	. 30	37	- 4	1	1		38	577	6	
Inhalation	30 I/min	0.47			0.47			0.49										
As received	IIIIaiatioii	95 I/min	1.88				Α,	1.89					1.81					
	Exhalation	160	Α	В	С	D	Е	Α	В	С	D	E	Α	В	С	D	E	
20 70	Exnaiation	l/min	2.9	2.9	3.0	2.9	2.9	2.6	2.6	2.6	2.6	2.6	3.0	3.0	2.9	2.9	2.9	
	Flow Ra	nte	7		39					40			. 1		41			
Simulated	Simulated wearing Inhalation 95	30 I/min	0.47			0.47			0.46									
wearing treatment		95 I/min	1.42			1.42			0 2	1.36								
treatment	Exhalation 16		160	Α	В	С	D	Е	Α	В	С	D	Е	Α	В	С	D	Е
		l/min	2.5	2.6	2.5	2.5	2.5	2.5	2.4	24	2.4	2.4	2.4	2.4	2.4	2.4	2.4	
30 30	Flow Ra	ite	40	42			43			0 /	44				30			
Tomorovotuvo		30 I/min	0.46			0.45			. 1	0.45				1				
Temperature conditioned	Inhalation 95		1.64			1.66			6	1.70								
	36 36 36 30	160	Α	В	C	D	Е	Α	В	С	D	E	Α	В	С	D	Ē	
Exhalation	EXTIGIATION	l/min	2.5	2.5	2.5	2.4	2.4	2.8	2.8	2.7	2.7	2.7	2.6	2.5	2.5	2.5	2.5	
Assessment	5, 5,	FFP2 Fail																

A: Facing directly ahead

B: Facing vertically upwards

C: facing vertically downwards

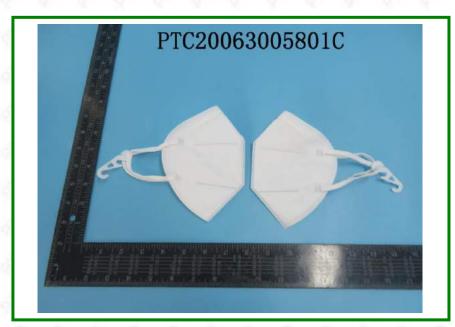
D: Lying on the left side

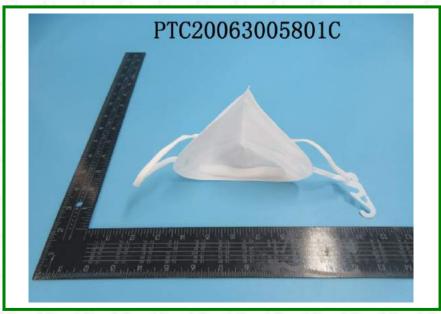
E: Lying on the right side



## Experts in Safety Test Report

## Photo(s) of Sample:





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

## **EU DECLARATION OF CONFORMITY**

## Personal Protective Equipment:

Brand:	Shining Time
Name:	Protective Mask
Model:	KDD1001
Harmonised Standards:	EN149:2001+A1:2009
Class:	FFP2 NR
Manufacturer:	QingDao KANGDUODUO Protective Equipment Co.,Ltd
Manufacturer Address:	West of Sili Village, Lancun Town, Jimo District, Qingdao City, Shandong Province, China

This declaration of conformity is issued under the sole responsibility of the manufacturer:

QingDao KANGDUODUO Protective Equipment Co.,Ltd

The object of the declaration described above is in conformity with the relevent Union harmonization legislation: Personal Protective Equipment Regulation (EU) 2016/425.

The fulfilment of the relevant health and safety requirements set out in Annex II has been demonstrated.

The notified body:

LGAI TECHNOLOGICAL CENTER (APPLUS),
Campus UAB, Ronda de la Font del Carme s/n, E-08193 Bellaterra (Barcelona),
Spain,

Noyified Body Number:0370

performed the EU type-examination (Module B) and issued the EU type-examination certificate with notified body number 0370.

The PPE is subject to the conformity to type assessment procedure based on internal production control plus supervised product checks at random intervals (Module C2) set out in the Regulation (EU) 2016/425, under surveillance of the notified body LGAI TECHNOLOGICAL CENTER (APPLUS), NB 0370.

Signed for and on behalf of







# FFP2 CE0370 EN 149:2001+A1:2009