GB/T 32610-2016 Technical specification of daily protective mask

1 Scope

This standard specifies the terminology and definition, grading, technical requirements, test methods, inspection rules, packaging, marking and storage of daily protective masks.

Shipping requirements.

This standard applies to protective masks worn under air pollution in daily life to filter out particulate matter.

This standard is not applicable to respiratory protection products for special industries such as anoxic environment, underwater operation, escape, fire fighting, medical treatment and industrial dust protection, and also not applicable to respiratory protection products for infants and children.

2 Normative references

The following documents are essential for the application of this document. Where the date of the citation file, only the date version applies to this article

piece. For undated references, the latest version of the document (including all change orders) applies to this document.

GB2890 - 2009 Respiratory protection Self-absorbing filter gas mask

GB / T2912.1 Textiles Determination of formaldehyde Part 1: Free and hydrolyzed formaldehyde (water extraction method)

GB / T7573 Textiles Water Extract

Measurement of pH

GB / T10586 Technical conditions of the wet heat test chamber

GB / T10589 Technical conditions of the cryogenic test chamber

GB / T11158 High-temperature test chamber technical conditions

GB / T13773. 2 Textiles Seam tensile properties of fabrics and their products Part 2: Measurement of seam strength by grip method

GB / T14233.1 - 2008 Test Methods for Medical Infusions, Blood Transfusions, Syringes Part 1: Chemical Analysis Methods

GB15979 Hygiene standards for single-use sanitary products

GB / T17592 Textiles Determination of prohibited azo dyes

GB / T23344 Determination of 4-aminoazobenzene in textiles

GB / T29865 Textiles Colour fastness test Frictional colour fastness Small area method

3. Terms and definitions

The following terms and definitions apply to this document.

3. 1

Particulate matter (particle size less than or equal to 2. 5μm) particulatematter (PM 2. 5)

5μm) particulatematter (PM 2. 5)

Aerodynamic equivalent diameter in ambient air is less than or equal to 2.

5 μ m in ambient air, also known as fine particles.

[GB3095 - 2012, definition 3.4]

3. 2

Filter efficiency filterefficiency

The ability of the mask body to filter out particulate matter under specified conditions, expressed as a percentage.

3. 3

Particle protective performance

The ability of the mask to block particulate matter under specified conditions, expressed as a percentage.

4 Grading

The protective effect of masks is classified from high to low as A, B, C and D. The ambient air quality for each level of mask is shown in Table 1. The masks should be able to reduce the concentration of inhaled particulate matter (PM 2. 5) to ≤75 μ g / m3 (air quality index category good and above) in the corresponding air pollution environment.

Protective effect level	Class A	Class B	Class C	Class D
Applicable air quality index categories	serious pollution	Severe and below pollution	Heavy pollution and below	Moderate and below pollution

Table 1 Ambient air quality for different protection effect levels

5. Technical requirements

5.1 Basic requirements

5. 1. 1 The mask shall provide safe and secure protection for the mouth and nose.

5. 1.2 Raw materials for masks shall not use recycled materials containing highly toxic, carcinogenic or potentially carcinogenic substances and materials known to cause skin irritation or other adverse reactions, and residues of other restricted substances shall meet the relevant requirements and be odour-free.

5. 1. 3 The mask shall not have sharp corners and edges that can be reached and shall not cause injury to the wearer.

5. 1.4 The mask should be easy to wear and remove, have no visible pressure or pain during wearing and have little effect on head movement.

Note: See Appendix C for mask wearing environment and precautions.

5.2 Appearance requirements

The mask surface should be free of tears, oil stains, distortion and other obvious defects.

5.3 Intrinsic quality

The intrinsic quality requirements are shown in Table 2.

Project		Requirements
Color fastness to friction (dry/wet)a /class ≥		4
Formaldehyde content/(mg/kg) ≤		20
pH		4.0~8.5
Decomposable carcinogenic aromatic amine dye [a] / (mg/kg)		Prohibited
Residue of ethylene oxide [b] /(μ g/ g) ≤		10
Inhalation resistance / Pa ≤		175
Breathing resistance / Pa ≤		145
Strong fracture of the mask strap and the connection of the strap to the body of the mouthpiece / N ≥		20
Breath valve cover fastness [c]		Should not slip, fracture or deform
Microbial	Coliform	must not be detected
	Athogenic septic bacteria [d]	must not be detected
	Total fungal colonies/(CFU/g) ≤	100
	Total number of bacterial colonies / (CFU / g) ≤	200
View below the mask ≥		60°

Table 2 Intrinsic quality indicators

[a] Only the dyeing and printing part is assessed.

[b] Only masks treated with ethylene oxide will be tested.

[c] Only masks with expiratory valves will be tested.

[d] Refers to Pseudomonas aeruginosa, Staphylococcus aureus and Streptococcus haemolyticus.

5.4 Filtration efficiency

According to the filtration efficiency, it can be divided into: Class I, Class II, Class III. The corresponding indicator values for each level are shown in Table 3.

Filter efficiency classification		Grade I	Grade II	Grade III
Filtration efficiency/ % ≥	saline medium	99	95	90
	oily medium	99	95	80

Table 3 Filtration efficiency levels and requirements

5.5 Protective effects

5. 5.1 The protective effect requirements for masks of different protective effect levels are shown in Table 4.

Protective effect	A	B	C	D

level				
Protection effect/ % ≥	90	85	75	65

Table 4 Protective effect requirements for masks of different protective effect levels

5. 5. 2 When the protective effect level of the mask is A, the filtration efficiency shall be II or above; when the protective effect level of the mask is B, C, or above.
Class D, filtration efficiency should be Class III or above.

6 Test Methods

6.1 Visual inspection
Ten masks were sampled and examined by visual inspection. The test light is based on normal natural light, such as the fluorescent light, the illumination is not less than
400lx .

6.2 Colour fastness to friction
In accordance with GB / T29865. The outer layer of the dry friction test mask and the layer of the wet friction test mask in contact with the human face.

6.3 Formaldehyde content
Implemented in accordance with GB / T2912.1.

6.4 pH
In accordance with GB / T7573. Specimens are cut at the contact layer between the mask and the person's face.

6.5 Decomposable carcinogenic aromatic amine dyes
In accordance with GB / T17592 and GB / T23344.
Note: In general, GB/T17592 is used first, and GB/T23344 is used when aniline and/or 1,4-phenylenediamine are detected.

6. 6 Ethylene oxide residues
According to the product labeling, ethylene oxide treated masks are to be applied in accordance with the provisions of chapter 9 of GB / T14233. 1 - 2008.
1 - 2008 in accordance with Chapter 9 of GB / T14233. Take parallel samples.
For testing, samples are cut on the body of the mask. If one of the test results passes and the other fails, it shall not be averaged and shall be re-sampled,
Take the highest value as the test result. Results are calculated as relative content, with one decimal place reserved.

6.7 Inhalation resistance

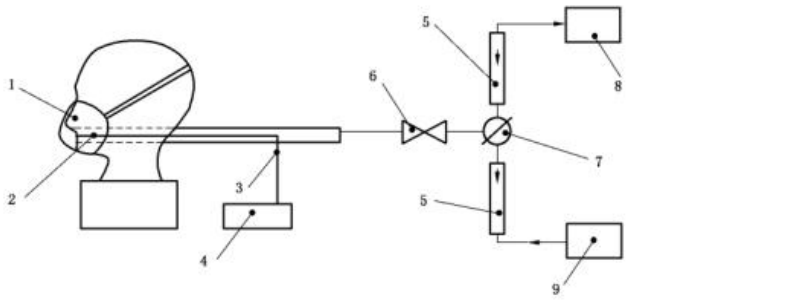
6.7.1 Samples and pretreatment

Four samples, two of which were untreated and two of which were pretreated as specified in A.3.2 in Appendix A. If the sample is of a different type, each type shall have two samples, one untreated and one pretreated in accordance with A.3.2.

6.7.2 Testing equipment

6. 7. 2. 1 The inspiratory resistance testing device consists of the test head die breathing tube, pressure measuring tube, micro-pressure meter, flow meter, regulating valve, switch valve, pump, air pump, air pressure gauge, air pressure gauge, air pressure gauge, air pressure gauge, air pressure gauge, air pressure gauge, air pressure gauge.

Air compressor composition. See Figure 1.



1 --- Sample to be measured;
2 ---Test head mold breathing tube;
3 ---Pressure tube;
4 ---Micro-pressure meter;
5 ---Meter;
6 --- regulating valve;
7 --- Switching valve;
8 --- pump (for inspiratory resistance detection);
9 --- air compressor (for inspiratory resistance detection).

Figure 1 Schematic diagram of the inspiratory and expiratory resistance detection devices

6.7.2.2 Flow meter range is 0L / min~100L / min with 3% accuracy.

6.7.2.3 Micro-pressure measuring range is 0Pa to 1000Pa with an accuracy of 1Pa.

6.7.2.4 Test head die. The main dimensions of the head mold should meet the requirements of Appendix B. There are three models, large, medium and small.

6.7.2.5 The pumping capacity of the pump should not be less than 100L / min.

6.7.3 Testing conditions

The ventilation volume is constant at (85±1) L / min.

6.7.4 Testing methods

Check the airtightness and working condition of the detection device. Adjust the ventilation volume to (85±1) L / min and set the system resistance of the detection device to 0.

Place the specimen on a matching test head mold, adjust the position of the mask and the

elasticity of the headband to ensure a tight fit between the mask and the test head mold. The ventilation volume was adjusted to (85±1) L / min, and inspiratory resistance was measured and recorded. During the test, take appropriate measures to avoid attachment of the specimen to the mouth of the breathing tube.

6.8 Breathing resistance.

6.8.1 Sample and pretreatment requirements are the same as in 6.7.1.
6.8.2 Testing equipment
6.8.2.1 The expiratory resistance detection device is illustrated in Figure 1.

6.8.2.2 The flow meter is the same as 6.7.2.2.
6.8.2.3 Microbarometers are the same as 6.7.2.3.
6.8.2.4 Test head die dimensions are the same as 6.7.2.4.
6. 8. 2. 5 Air compressor discharge capacity not less than 100L / min.
6.8.3 Testing conditions
The same requirement as 6. 7.3.
6.8.4 Testing methods
Check the airtightness and working condition of the detection device. Adjust the ventilation volume to (85±1) L / min, and set the system resistance of the test device Set to 0.
The specimen will be worn on a matching test head mold, adjust the wearing position of the specimen and the elasticity of the headband to ensure that the specimen and the test head mold The fit. Then adjust the ventilation volume to (85±1) L / min, measured and recorded inspiratory resistance. In the testing process, appropriate methods are used to avoid Kind of attached to the mouth of the breathing tube.

6.9 Strong fracture of the mask strap and its connection to the body of the mask

6. 9. 1 Take 5 mask samples.
6.9.2 In accordance with GB / T13773.2. Stretching speed 100mm / min. The test hook is mounted on the upper clamp of the stretching apparatus, when testing
The mask strap hangs vertically from the test hook and the body of the mask is clamped axially in the middle of the lower clamp with a loose grip.
6.9.3 Test hooks: made of steel, bar-shaped, width (10±0.1) mm, thickness (2±0.1) mm, bent at one end to form a right angle hook, bent hook Partly at least (12±0.1) mm, the edge of the hook should be smooth. The test hook should be conveniently mounted in the clamp of the tensile tester. See Figure 2.

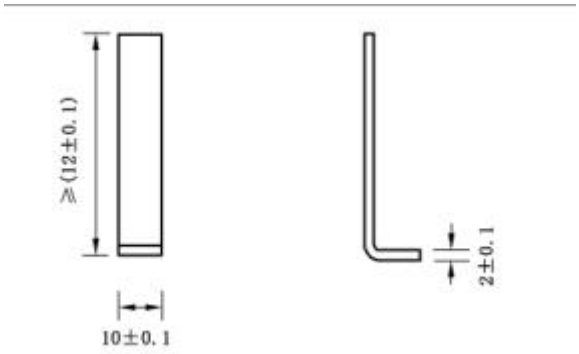


Figure 2 Schematic of the test hook

6.10 Fastness of breath valve cover

6.10.1 Samples and pretreatment
3 untreated samples.
6.10.2 Test equipment
6.10.2.1 Material tester measuring range: 0N~1000N with 1% accuracy.
6. 10.2.2 Clamps shall be of appropriate construction and clamping degree.
6.10.2.3 Timer accuracy of 0.1s.

6.10.3 Testing methods
Secure the expiratory valve cover and the mask body of the test specimen separately with appropriate fixtures (the fixing point should be reasonably close to the corresponding connection). start Material testing machine, apply axial tensile force to 10N for 10s, record if fracture, slippage and deformation phenomenon.

6.11 Microbiological indicators
Implemented in accordance with GB15979.

6. 12 Perspectives

Implemented in accordance with the provisions of GB2890 - 2009 in 6. 6. 8 of GB2890 - 2009.

6.13 Filtration efficiency

As specified in Appendix A.

6.14 Protective effects
To be implemented as specified in Appendix B.

7. Inspection rules

7.1 Sampling
Products of the same species and specification (model) according to the delivery lot number as

inspection lot. Random from each test lot according to test requirements
Take a corresponding number of samples. When the number of deliveries in the same lot is greater than 100,000, the sample size is doubled.

7.2 Quality determination

7.2.1 Judgement on the quality of appearance
The external quality is tested in accordance with 6. 1. 1 Test with at least 8 or more specimens meeting the 5.2 requirement. 5.2 Requirement to pass or fail Qualified.
7.2.2 Intrinsic quality determination
The test results of intrinsic quality, filtration efficiency and protection effect meet the requirements of 5.3, 5.4, 5.5 respectively, and are judged to be satisfactory. 5.3, 5.4, 5.5 requirements, judged to be qualified, otherwise judged to be unqualified.
7.2.3 Outcome determination
The products are judged to be qualified in terms of external quality, internal quality, filtration efficiency and protection effect. Otherwise, it was determined that the product was not Qualified.

8 Packaging, marking and storage and transportation

8.1 Packaging
Each mask should be packaged tightly.

8.2 Marking
Each packaging unit shall have an inspection certificate of conformity and shall bear a clearly identifiable marking on the obvious parts, which shall contain the following:

a) Manufacturer name and address;
b) Product name;
c) Main raw materials (inner, outer, filter layer);
d) the implementation standard number;
e) Product protection effect level;
f) Product specifications (small, medium, large);
g) Instructions for use (wearing method, precautions, etc.);
h) Date of manufacture, recommended use time (hours) and storage period;
i) If disinfection is used, the disinfection method should be indicated.

8.3 Storage and transportation
The product should be sealed, not broken, not stained, not damp in storage and transportation, pay attention to fire, rain, acid, alkali and avoid direct sunlight.

Appendix A
(Normative appendix)
Filtration efficiency test method

A. 1 Scope

This appendix specifies test methods for the filtration efficiency of the mouthpiece hood.
This appendix applies to everyday protective masks.

A. 2 Testing principles

Aerosol particles of a certain concentration and particle size distribution occur through the aerosol generator, in order to specify the gas flow through the mask body, using the appropriate When the particulate matter detection device detects the concentration of particulate matter before and after passing through the mask body. Reduction of particulate matter concentration after passing through the mask body by aerosol A percentage of the amount of the mask is used to evaluate the filtering efficiency of the mask body against particulate matter.

A. 3. Samples and pretreatment

A. 3. 1 Sixteen samples were taken and divided into two groups, one using a salt medium and one using an oil medium. 5 in each group are not Processing samples, Three are pretreated samples as specified in A. 3.2.

A. 3.2 Temperature and humidity pretreatment

A. 3.2.1 Pretreatment equipment

A. 3.2.1.1 The technical performance of the wet heat test chamber shall comply with the requirements of GB / T10586.

A. 3. 2. 1. 2 The technical performance of the high temperature test chamber shall comply with the requirements of GB / T11158.

A. 3. 2. 1. 3 The technical performance of the cryogenic test chamber shall comply with the requirements of GB / T10589.

A. 3.2.2 Pretreatment methods

The samples were removed from the original packaging and processed in the following order:

a) at (38±2.5) °C and (85±5) % relative humidity for (24±1) h ;

b) at (70±3) °C in a dry environment (24±1) h ;

c) 24±1 h at (-30±3) °C.

Prior to each step, the sample temperature should be restored to room temperature for at least 4 h before performing subsequent tests. After pretreatment the sample should be placed In an airtight container and tested within 10h.

A. 4 Test equipment

A. 4.1 NaCl particulate matter filtration efficiency detection system

The NaCl particulate matter filtration efficiency testing system requires the following:

a) NaCl particulate matter concentrations not exceeding 30 mg / m^3,Counting median diameter (CMD) is (0.075±0.020) μ m ,Size distribution The geometric standard deviation is not greater than 1. 86 ;

b) The dynamic range for particle detection is 0. 001 mg / m^3 ~100mg / m The accuracy is 1%;

c) The detection flow rate range is 30L / min~100L / min, the accuracy is 2%;

d) The detection range for filtration efficiency is 0 to 99. 999% ;

e) shall have a device capable of neutralizing the charge of the particulate matter that occurs.

A. 4.2 Oily particulate matter filtration efficiency detection systems The requirements for an

oil-based particulate matter filtration efficiency testing system are as follows:
a) The test medium is DEHS or other applicable oil (e.g. paraffin oil) particulate matter with a particulate matter concentration not exceeding 30 mg / m
3, counting. Bit diameter (CMD) is (0.185±0.020) μ m , the geometric standard deviation of the size distribution is not greater than 1.
60 ;
b) The dynamic range of particle size detection is 0. 001 mg / m 3 ~100mg / m The accuracy is 1%;
c) The detection flow rate range is 30L/min~100L/min, the accuracy is 2%. d) The detection efficiency range is 0~99.999%;
d) The detection range of filtration efficiency is 0~99.999%.

A. 5 Test conditions

The test ambient temperature is (The relative humidity was (30±10) %.

A. 6 Testing process

A. 6. 1 Test flow rate (85±4) L / min (If multiple filter elements are used, the flow rate should be divided equally, e.g., double filter elements, the test rate of each filter element should be equal. The measured flow should read (42. 5±2) L / min; if it is possible to use multiple filter elements alone, they should be tested according to the test conditions of a single filter element).
A. 6.2 Adjust the filter efficiency testing system to the detection state and adjust its relevant parameters.
A. 6.3 Attach the mask body or filter element to the detection device airtightly with an appropriate fixture.
A. 6.4 After the start of the test, the filtration efficiency of the specimen is recorded at a sampling frequency of ≥1 time/min. The test should continue until the particles are on the mask body The product should not be loaded until it reaches 30mg.

A. 7 Data processing

The minimum value of the filtration efficiency obtained throughout the test was used as the filtration efficiency of the mask sample material for that batch. Retain the value by one Decimal.

Appendix B
(Normative appendix)
Test methods for the effectiveness of particle protection

B. 1 Scope

This appendix specifies test methods for the effectiveness of daily protective masks against particulate matter.
This appendix applies to everyday protective masks. Other masks may be consulted.

B. Principle 2

Aerosol particles of certain concentration and particle size distribution occur through the aerosol

generator, in order to specify the gas flow rate through the mask, using appropriate particle detection device to detect the concentration of particles before and after filtering through the mask. The protective effect of the mask against particulate matter was evaluated by calculating the percentage reduction in particulate matter concentration after the passage of the aerosol through the mask.

B. 3. Samples and pretreatment

Sixteen samples were taken and divided into two groups, one group was tested using a saline medium and the other group was tested using an oily medium. Five of the samples in each group are untreated and three are pretreated at the temperature and humidity specified in A.3.2.

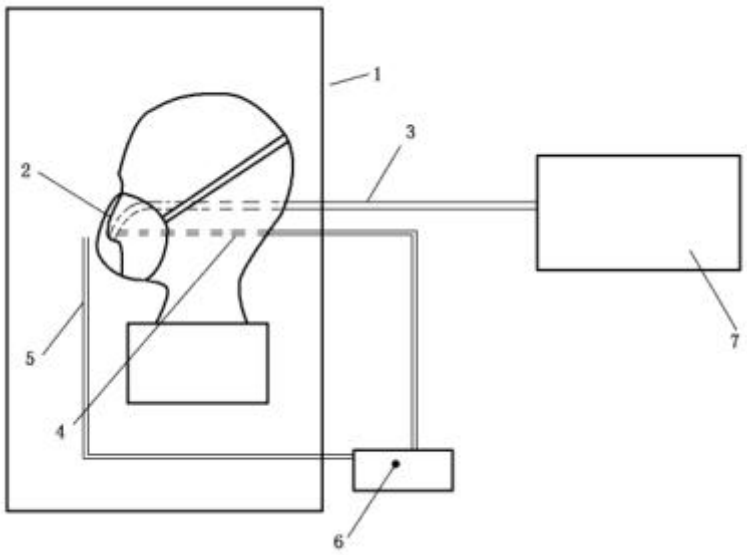
B. 4 Test environment

The temperature was (25±5) ℃ and the relative humidity was (30±10) %.

B. 5 Protective effect testing devices

B. 5.1 Schematic diagram of the protective effectiveness testing device

See Figure B.1 for a diagram of the protective effect test device



Instructions:

1 --- Test chamber; 5 --- Ambient gas sampling tube;

2 ---Sample under test; 6 ---Aerosol concentration monitoring device;

3 --- Head mold breathing tube; 7 --- Breathing simulator.

Figure B.1 Schematic diagram of the protective effect test device

B. 5.2 Protective effect test chamber

Encloseable compartments with large viewing windows, of a size that is easy for the inspector to operate. The test media is fed evenly from the top of the bin, the test knot After it is closed, it is discharged through the bottom opening of the bin.

B. 5.3 Test media

B. 5.3.1 NaCl particles with an initial concentration in the test chamber of 20 mg / m in the

effective space
3 ~30mg / m 3, the concentration changes during the test It should not be more than 10%. The aerodynamic particle size distribution of the particulate matter should be 0. 02 μ m~2 μ m. The median mass diameter is about 0. 6 μ m.
02 μ m~2 μ m, with a median mass diameter of about 0. 6 μ m. The aerodynamic particle size distribution should be 0. 02 μ m~2 μ m.
B. 5.3.2 Corn oil particles with an initial concentration in the test chamber of 20 mg/m
3 ~30mg / m 3, the concentration changes during the test It should not be more than 10%. The aerodynamic particle size distribution of the particulate matter should be 0. 02 μ m~2 μ m. The median mass diameter is about 0. 3 μ m.
02 μ m~2 μ m, with a median mass diameter of about 0. 3 μ m. The aerodynamic particle size distribution should be 0. 02 μ m~2 μ m.

B. 5.4 Aerosol concentration monitoring devices
Gas sampling flow rate:
1L / min~2L / min, sampling frequency ≥1 time / min, dynamic range 0.001mg / m
3 ~100mg / m 3 , The accuracy is 1%. The inhalation gas sampling tube should be as close to the nostril as possible, and the ambient air sampling tube should be located not more than 3cm from the mouth and nose of the mask.

B. 5. 5 Test head model size
The dimensions of the test head die are shown in Table B. 1. 1 .

Dimensional items	trumpet	medium size	large size
Head length	169	181	191
head width	140	148	157
interaural width	127	137	145
face width	136	143	148
long morphological plane	109	120	129
coronal arc of the head	349	361	363
sagittal arc of the head	329	349	368
nasal height	48	51	59
nasal depth	17	18. 6	20
nose width	35	37	40
earpiece under the chin	138	142	150
long submaxillary angle of the ear	58	66	72. 2
Subnasal point under the chin	62	64	71

B. 5.6 Breathing simulators

Sinusoidal airflow, respiratory rate 20 times/min, respiratory flow (30±1) L/min.

B. 6 Testing process

B. 6.1 Inspect the test device to confirm that it is in proper working order.

B. 6.2 Wear the mask securely on an appropriately sized head mould in accordance with the manufacturer's instructions for use, turn on the respiration simulator and aerosol concentration monitoring device, and after the displayed values have stabilized, record the concentration of particulate matter in the gas entering the head mould through the head mould breathing tube (i.e., the background concentration of particulate matter in the mask C 0).

B. 6.3 Close the respiration simulator, introduce the test media into the test chamber, and use the aerosol concentration monitoring device to monitor the concentration of the test media in the chamber through the ambient air sampling tube, until it reaches the concentration of the effective space in the test chamber in B. 5.3.

5.3. After the concentration of the effective space in the test chamber is reached, open the breathing simulator.

B. 6. 4 Use an aerosol concentration monitoring device to record the in-vault test media concentration C 1 and the inhalation test media concentration C 2 through the head-mold breathing tube.

B. 6.5 For 1 h, monitor the values of C 1 and C 2 throughout the test and calculate the protective effect of the sample.

B. 7 Calculation of protection effects

The protective effect is calculated according to formula (B. 1):

$$P = (C 1 - C 2 + C 0)/ C 1 \times 100\% \quad \text{……(B.1)}$$

where:

C 1 - concentration of test media in the test chamber during the experiment, in mg/m3 (mg/ m3);

C 2 - test media concentration in milligrams per cubic metre (mg/m3) in the inhalation gas through the head-mode breathing tube during the experiment;

C 0 - - the background concentration of particulate matter in the mask, in mg/m3.

During the test, the values of C 1 and C 2 should be monitored at the same time and the protective effect of the sample should be calculated for each sampling moment, using the minimum value of the protective effect obtained during the test as the protective effect of the sample.

Appendix C
(Information appendix)
Environment and Precautions for Wearing the Mask

C. 1 Scope

This appendix provides information on the wearing environment and precautions for daily protective masks with different levels of protection.

C. 2 Ambient air quality for masks of different protective effect levels

C. 2. 1 When particulate matter is the main pollutant in the ambient air, the concentration of fine particulate matter in the inhaled air should be reduced to meet the requirement of good ambient air quality (PM 2.5 concentration ≤75 μ g / m3) and above after wearing a mask with a protective effect level appropriate to the air pollution environment.
C. 2. 2 The maximum limits of ambient air quality and permissible fine particulate matter (PM 2.5) concentrations for different protective effect levels are shown in Table C. 1.

Table C.1 Maximum limits of ambient air quality and permissible fine particulate matter (PM 2.5) concentrations for different protection effect levels

Protective effect level	A	B	C	D
Applicable ambient air quality index categories	serious pollution	Severe and below pollution	Heavy pollution and below	Moderate and below pollution applicable
PM 2.5 Concentration limit/(μ g/ m^3) ≤	500	350	250	150
Maximum permissible PM 2.5 concentration limit/(μ g/ m^3)	700	500	300	200

C. 3 Precautions for wear
C. 3. 1 Select suitable masks to be worn according to air pollution conditions.
C. 3.2 Check to confirm that the mask packaging is intact.
C. 3. 3. 3 Check the appearance before wearing, read the method of use and wear correctly according to the method of wearing.
C. 3.4 Wearing protective masks should be replaced in a timely manner and is not recommended for long-term use.
C. 3.5 Discontinuation of use is recommended in the event of discomfort or adverse reactions during wearing.
C. 3. 6 When the concentration of airborne fine particulate matter is greater than 500 μ g / m^3, it is recommended to reduce outdoor activities.

Reference Literature
[1] GB2626 - 2006 Respiratory protection Self-suction filtered anti-particulate respirator
[2] GB3095 - 2012 ambient air quality standards
[3] GB19083 - 2010 Technical requirements for medical protective masks
[4] GB31701 - 2015 Technical Specification for the Safety of Textile Products for Infants and Children
[5] HJ633 - 2012 Ambient Air Quality Index (AQI) Technical Regulations (Trial)
[6] National Pharmacopoeia Commission . Chinese Pharmacopoeia . Beijing:China Pharmaceutical Science and Technology Press, 2015.