

CE Certificated, FFP2 Grade AirQUEEN Breeze Mask

Powerful filtering, excellent permeability
Introducing easy-to-breathe mask with exceptional filter!





MADE IN
K  **OREA**

Made with our own proud
technology-AirQUEEN Breeze Mask

- Nanofiber Filter Manufactured by: LEMON Co., Ltd.
- Mask Manufacture & Distribution: TOPTEC Co., Ltd.

S O O M
L A B

Breathing New Technology, Nanofiber

Nanofiber Filter

Nano fibers are only 1 nanometer, 1 billionth of a meter, in thickness. Nanofiber is a new material made by building these fibers sterically for a fishnet structure that has better permeability, blockability, and durability than any fiber ever invented.



Permeability



Blockability



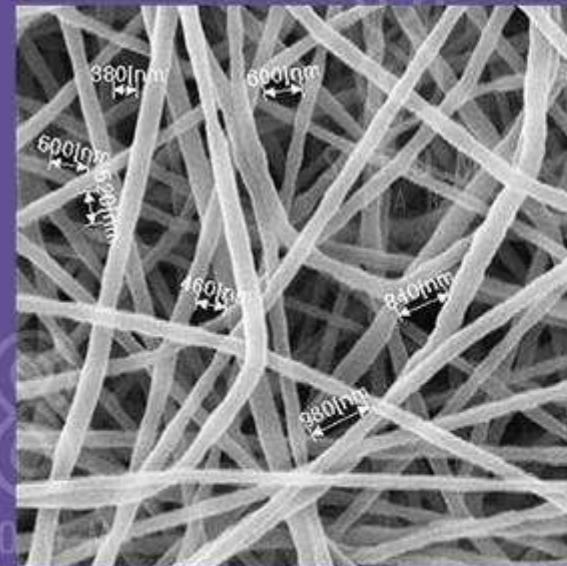
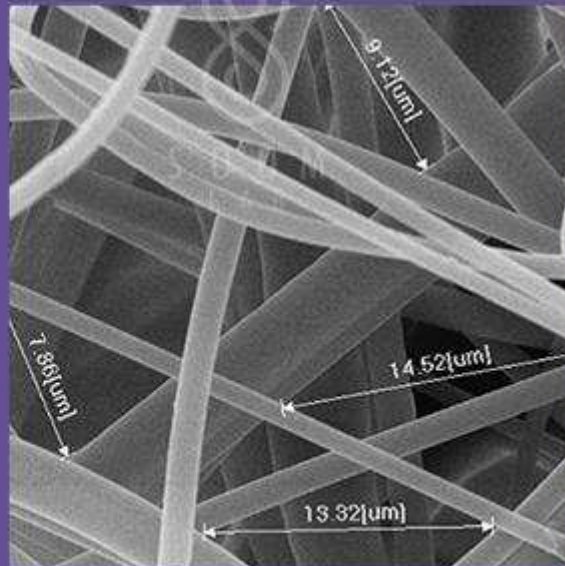
Durability



Nanofiber Filter has a different fiber thickness / space between fibers / filtering method from the existing electrostatic filter

Melt-Blown Filter
5,000 times
enlarged

The fiber is thick
Average space between the
fibers is over $10\mu\text{m}$



Nanofiber Filter
15,000 times
enlarged

Very thin, nano thickness
Average space between the fibers
is $1.0\mu\text{m}$, with self-filtering

We asked professor Kim Iksu, the most renowned professor in the fiber research area.

What kind of material is **Nanofiber**?

The thickness of a nano fiber is only a thousandth of a strand of hair.
Nanofiber is a material made by building these fibers sterically for a fishnet structure,
and nanofiber of 85% processing rate has both permeability and blockability.

The Nanofibers of LEMON have consistent thickness and pore size.
This means the ratio of the pores in the general area becomes very high,
which is relevant to permeability.

Because it touches the **nose** and the **mouth**,
this fiber is **very appropriate for masks**
where permeability is important

[From interview with professor Kim Iksu of Department of Textile at Shinshu University, Japan]



Long-lasting freshness from morning to evening!

The effectiveness of electrostatic masks decreases with each breath due to the moisture
Nanofiber Filter has great permeability, so you can feel fresh even after a long term use



Excellent filtering and permeability of Nanofiber

**If you care about the skin,
permeability is even more
important**

Wearing mask all day causes skin trouble (C Newspaper)

Must wear permeable masks (M Newspaper)

Pimple breaks out due to wearing masks
(National Health Insurance Service blog)

**There is moisture in our respiratory system
If a mask has bad permeability, the moisture from within
cannot escape, which causes eczema**

If you wear a mask for a long time, you really need a permeable mask

Because we need to wear it all day,
we made it lighter.

AirQUEEN Breeze mask 4.38g

Lighter than a sheet of paper, so you won't even realize wearing it!

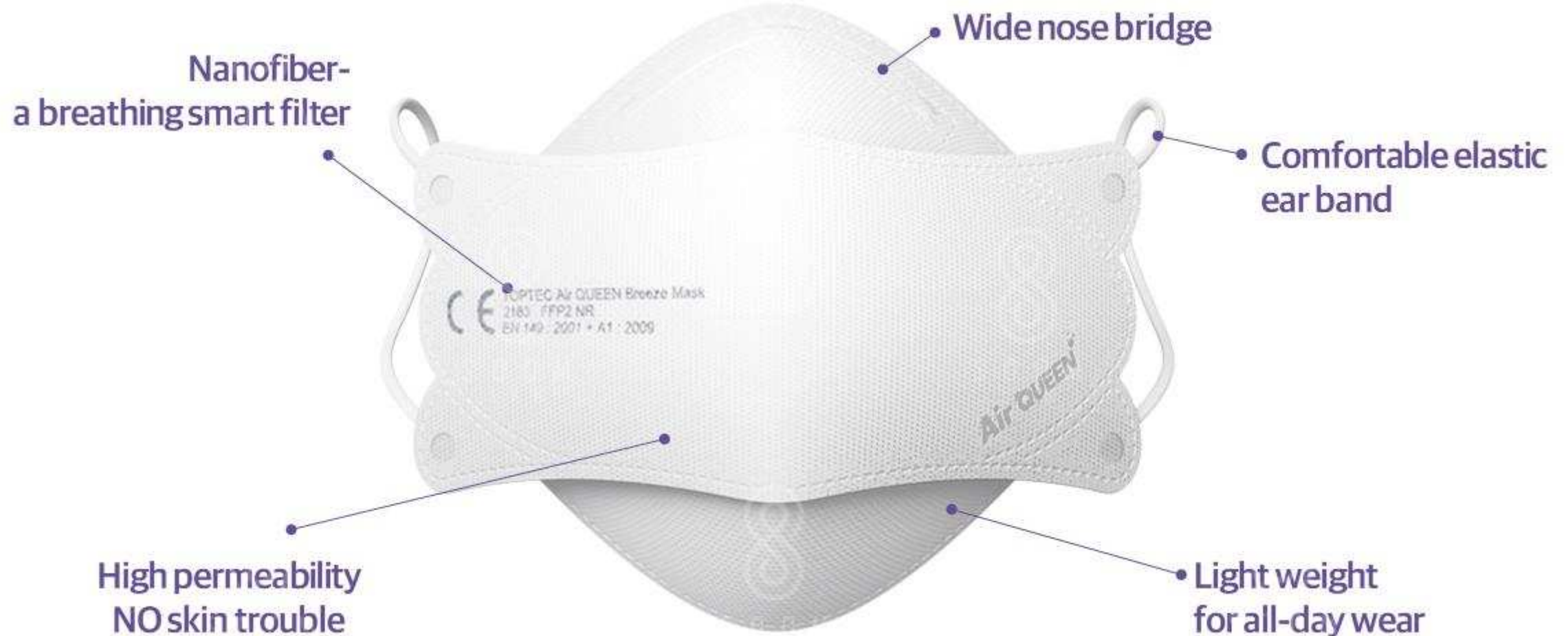


※ a sheet of A4 paper = 4.72g



3D ergonomic design to fit perfectly on all face types.

Nose bridge prevents sliding or fogging up.





**Individually wrapped
for easy carrying and using**





CE FFP2

AirQUEEN Breeze Mask is a FFP2 grade level mask that has officially been certified by European Commission

Certificate No: 2163-PPE-1433

Respiratory protective devices, filtering half masks to protect against particles manufactured by
TOPTEC CO., LTD.
140-22, Cheondangjeop 5-ro, Sandong-myeon, Gumi-si, Gyeongsangbuk-do, Republic of Korea
are tested and evaluated according to

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

Product Definition

Brand Name: Air Queen Model: Breeze Mask
Filtering half mask
Classification: FFP2 NR

- Certificate Holder : TOPTEC CO., LTD.
- Certificate No : 2163-PPE-1433
- Model Name : Air Queen / Breeze Mask FFP2 NR



FDA

AirQUEEN Breeze Mask is registered with FDA 510(k).



- Classification : Mask, Surgical
- Device Class : Class2
- 510(K) Number : K172500

(19) 대한민국특허청(KR)
 (12) 등록특허공보(B1)

(45) 공고일자 2011년06월09일
 (11) 등록번호 10-1040055
 (24) 등록일자 2011년06월02일

(51) Int. Cl.
 B01D 5/00 (2006.01) B01D 33/00 (2006.01)
 B07 45/00 (2011.01)

(21) 출원번호 10-2011-0016676
 (22) 출원일자 2011년05월24일
 심사청구일자 2011년05월24일

(30) 우선권주장
 20-2010-273071 2010년12월09일 일본(2P)

(56) 선행기술조사문헌
 JP2006051403 A
 KR200907020744 A
 KR200700447262 A
 JP2005013175 A

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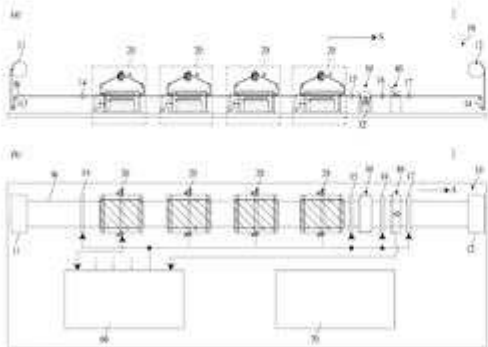
(04) 국제특허분류 및 나노기술 제2차장지

(37) 요약

노출 침착을 접이 한 상태에서 필터에 고압입을 인가하여 전체 면적을 전체 면적을 하는 경우에도, 균일한 품질을 가지는 나노 섬유를 높은 생산성으로 대량생산 하는 것이 가능한 국제특허분류 제2차장지

필터(150)가, 노출 필러(110)가, 발원자 필터(130)에 접속되고, 부원자 노출 필러(120)에 접속되는 장치에 대한 부원자의 전위가 접이 전위로 떨어진 전위 장치(100)를 구비하는 국제특허분류(201)로서, 필터(150)를 통과하는 위치에서 회전 자유롭게 회전할 수 있는 다공성 멤브레인(200)으로 이루어지는 보조 필터(170) 및 보조 필터(170)를 지지하는 지지대(180)의 이송 유닛에 대응하는 회전 유닛과 회전시키는 보조 필터 구동장치(172)를 구비하는 보조 필터(170)를 추가로 구비하는 국제특허분류 제2차장지

대표도



PATENT

The Nanofiber Filter of AirQUEEN Breeze Mask is manufactured with patent technology.

- Patent Registration no. : 10-1040055
- Name of Invention:
 An electrospinning device and an apparatus for manufacturing nanofiber

Cutting-edge technology that mass-produces consistent nanofiber filters
 Selected as one of 100 technologies to lead Korea in 2020
 Approximately 50 patents around the world



Proven suitable for ISO 9001 quality management system



Proven suitable for ISO 14001 environment management system

ISO

The Nanofiber Filter of AirQUEEN Breeze Mask is produced in a clean and sanitary facility.

The Nanofiber Filter used for AirQUEEN Masks is produced in a facility approved for environment management system, so it is safe and sanitary.





Test Report No. F600161/LF-CTSAYGAT8-00327 Issued Date: 2018. 01. 16. Page 1 of 17

LEMON CO., LTD.
1100-60 Sanhob-daeon, Sanseongmyeong
Gumi-si, Gyeongbuk
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:

SGS File No.	1. AYGAT8-00327
Product Name	1. Nano membrane (sanitary pad)
Item/Part Name	1. N/A
Received Date	1. 2018. 01. 09
Test Period	1. 2018. 01. 09. ~ 2018. 01. 16.
Test Requested	1. One hundred-seventy-four (174) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on July 7, 2017 regarding Regulation (EC) No. 1907/2006 concerning the REACH. Eight (8) substances in the Public Consultation List of potential Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) on Sep 5, 2017 regarding Regulation (EC) No. 1907/2006 concerning the REACH.
Test Method	1. Please refer to next page(s).
Test Result(s)	1. Please refer to next page(s).
Summary	1. According to the specified scope and evaluation screening, the test results of SVHC are 0.1% (w/w) in the articles of the submitted sample.

SGS Korea Co., Ltd

Jeff Jang

Jeff Jang / Chemical Lab Mgr

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SGS

The Nanofiber Filter

of AirQUEEN Breeze Mask

is approved by European SGS, REACH, and RoHS, and therefore is safe.



Metal material and harmful compound not detected



Organic solvent and compound not detected

- Cadmium N/D
- Lead N/D
- Mercury N/D
- Hexavalent chromium N/D
- Other 182 categories N/D

KAKEN

Nanofiber filter is approved its safety by KAKEN which is Japanese Certification Authority.

区検報告書

品名: ナノファイバーマスク

試験項目: 呼吸器用マスクの性能試験

項目	規格	結果
ろ過効率	99.9%	99.9%
圧力損失	100Pa以下	80Pa
吐出量	30L/min	30L/min

試験機関: KAKEN KAKEN

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試験機関: KAKEN KAKEN

品質検査報告書

品名: ナノファイバーマスク

検査項目: 物理特性試験

項目	規格	結果
繊維径	100nm	100nm
繊維長	1000nm	1000nm
繊維密度	1000000	1000000

試験機関: KAKEN KAKEN

Approved for safety by KAKEN TEST CENTER which is a Global Certification Authority evaluate a quality and a performance of textile products, household goods, and functional high-tech materials as an analyze center of JSTIIF.

confidential

KCL

This is an industrial product that passed the tests of KCL and is [**currently in process**] of being approved by the MFDS

Applied for the KF approval at the MFDS early April of 2020 after passing the test done by KCL, a testing institute designated by the MFDS.

It is manufactured with the same technology as Technoweb Disposable dustproof mask (KF94) from FTENE, the subsidiary company of TOPTEC, but if the manufacturer or brand is changed, the approval from the MFDS needs to be renewed, and until then, it cannot be publically distributed.

However, after the KF certification, 80% of the supply will be distributed as public, so there might be a shortage.

NIOSH

AirQUEEN Breeze Mask has passed every conformity evaluation test for N95 and CE FFP2 certificates.

Filter efficiency meets all of the N95(NIOSH) and CE FFP2 performance as 96.03%~99.694% and it has been found to have excellent functions in inhalation resistance(under 35mmH2O standard 8.2~8.8mmH2O) and exhalation resistance(under 25mmH2O 7.9~8.3mmH2O standard), making it a differentiated breathing convenience with the filter function of the mask.





Quality Indication According to Electric Products and Household Safety Law

- Product: AirQUEEN Mask
- Manufactured in: Korea
- Manufacturer: TOPTEC
- Distributor: TOPTEC
- Weight: 4.38g
- Product Type: Mask
- Expiry Date: 36 months
- Storage Directions: closed container,
in room temperature (1~30°C)
- Entire Ingredients:
felt (outer fabric, filter, inner fabric),
plastic sheath wire, polypropylene ring, nylon strap



AirQUEEN Mask is an industrial product.

AirQUEEN Mask uses the Nanofiber Filter technology of LEMON and is manufactured by TOPTEC.

Currently, the MFDS approval is being processed, and when it is approved as sanitation mask, 80% of the product supply will be distributed as public distribution.



Masks are a must! Prepare in advance with AirQUEEN Breeze Mask!

SOOMLAB is a partner of LEMON that joint-developed the Hyper Purifying Breathing Mask which is SOOMLAB's unique brand that has exclusive sales right.

SOOMLAB is a primary sales company of AirQUEEN Breeze mask and authorized as a distributor by TOPTEC, a parent company of LEMON.

SOOMLAB and BOOSTERZ are in charge of marketing, distribution, and sales of AirQUEEN Breeze Mask.

[AirQUEEN Mask mass purchase inquiry]

Email : contact@soomlab.co.kr

Store : <http://airqueenmask.com>

