

# Powerful filtering, excellent permeability AirQUEEN Nano Mask

Masks are a must!  
Introducing easy-to-breathe mask with exceptional filter





**MADE IN  
K  REA**

Made with our own proud  
technology-AirQUEEN Nano Mask

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

# 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

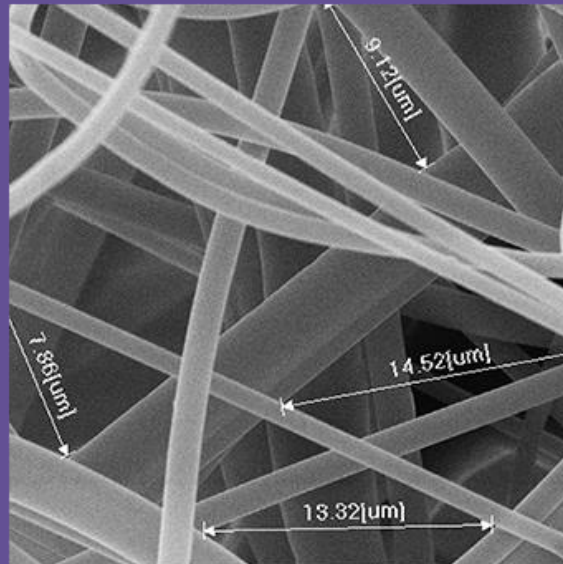


# Nanofiber Filter has a different fiber thickness / fiber thickness / filtering method from the existing electrostatic filter

## Melt-Blown Filter

**5,000** times enlarged

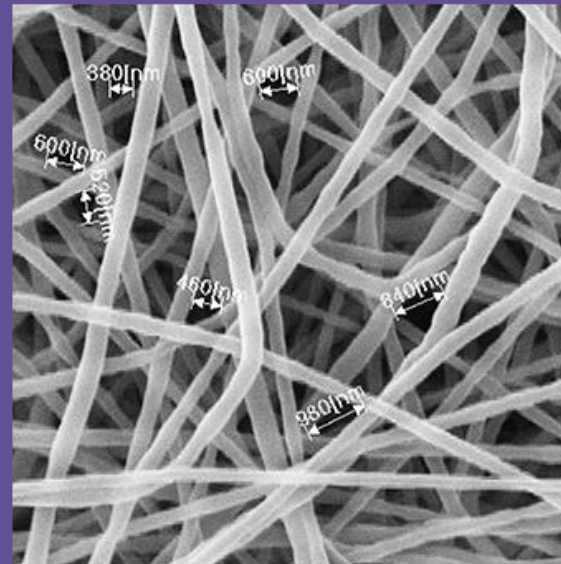
The fiber is thick  
Average space between the  
fibers is over 10 $\mu$ m



## Nanofiber Filter

**15,000** times enlarged

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



# The Nanofiber Filter from LEMON Co., Ltd is a cutting-edge technology applied to global brands and products

It is exclusively distributed to **THE NORTH FACE** as the brand **FUTURELIGHT**.

It is also used for **RENERGIE mask pack** from **LANCÔME** that touches the skin directly.

This technology is used for **smart devices** that sends **sounds** but needs **protection against dust and moisture**.



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

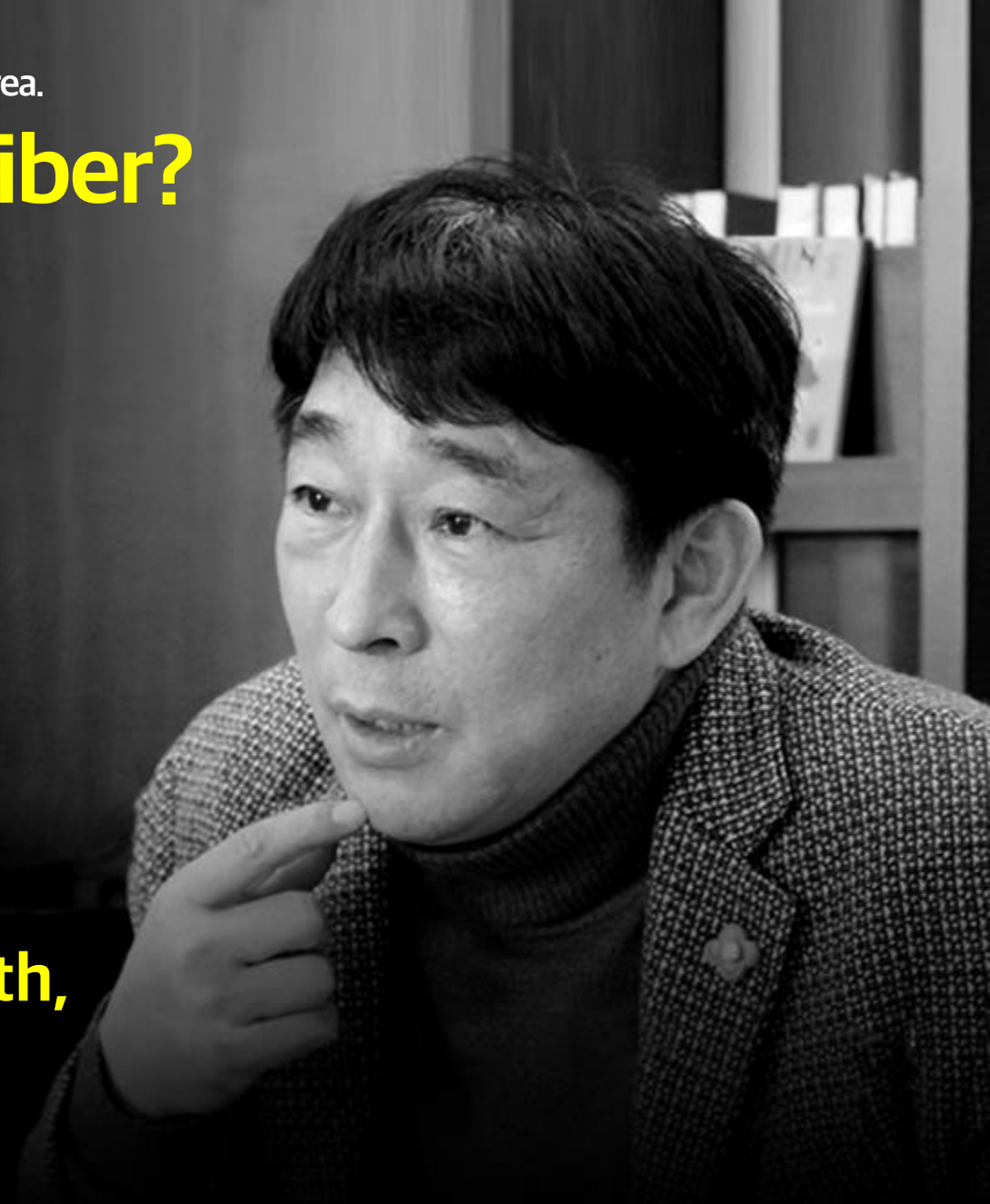
# What kind of material is **Nanofiber**?

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

Nanofiber smart filter blocks pollutants and enables easier breathing



**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 Nano mask 3.71g**

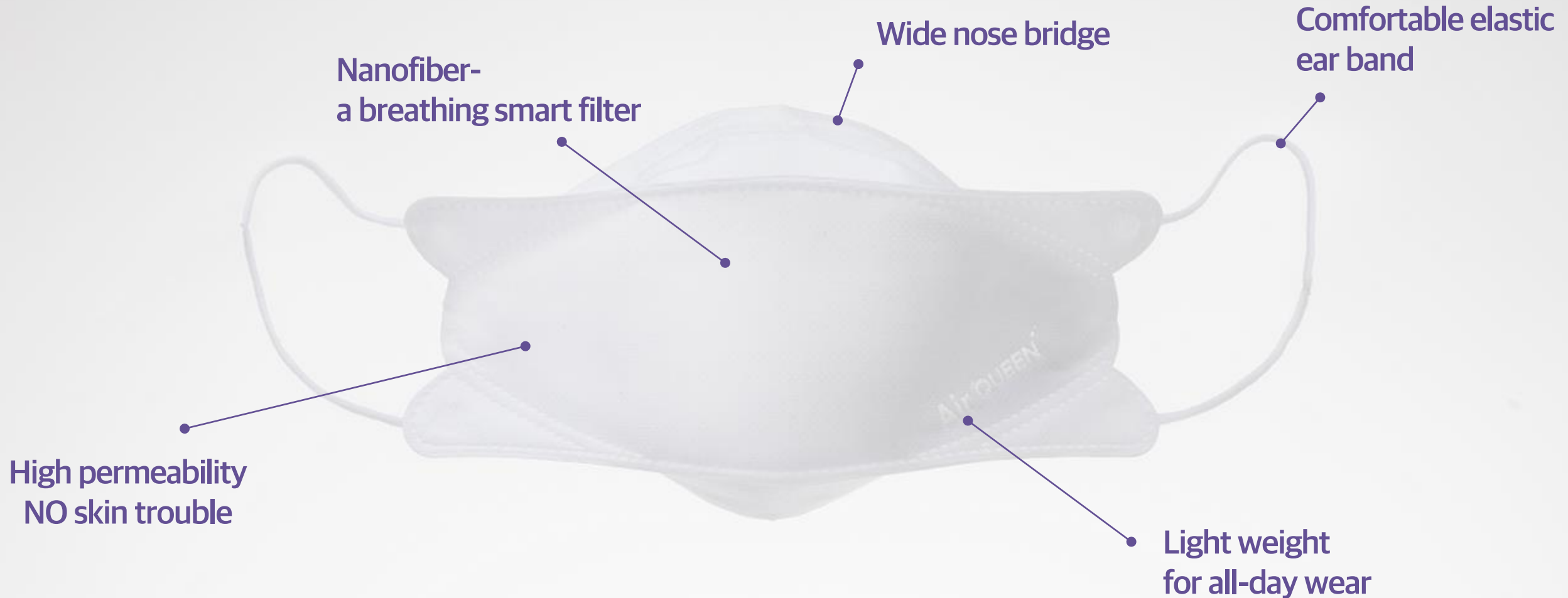
Lighter than a sheet of paper, so you won't even realize wearing it!



※ a sheet of 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**





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(73) 특허권자  
**신수 다이카부**  
 일본 나가노켄 마쓰모토시 아사히 3초메 1번 1교

(72) 발명자  
**이재환**  
 경상북도 구미시 산동면 봉산리 366번지

(74) 대리인  
**오정환**  
 T.3898567 나가노현우에다시토키타3-15-1 국립대학 법원신유대학신유학부소속

심사관 : 최봉돈

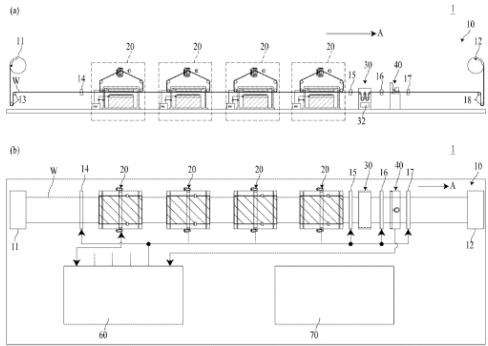
**(54) 전계방사장치 및 나노섬유 제조장치**

**(57) 요약**

노즐 블록을 집지 한 상태에서 컬렉터에 고전압을 인가하여 전계 방사를 하는 경우라도, 균일한 품질을 가지는 나노 섬유를 높은 생산성으로 대량생산 하는 것이 가능한 전계방사장치를 제공한다.

컬렉터(150)와, 노즐 블록(110)과, 정전극이 컬렉터(150)에 접속되고, 부전극이 노즐 블록(110)에 접속되는 동시에 해당 부전극의 전위가 집지 전위로 떨어진 전원 장치(160)를 구비하는 전계방사장치(20)로서, 컬렉터(150)를 둘러싸는 위치에 회전 자유롭게 배치된 절연성 또한 다공성의 엔들리스 벨트로 이루어지는 보조 벨트(172) 및 해당 보조 벨트(172)를 강직시트(18)의 이송 속도에 대응하는 회전 속도로 회전시키는 보조 벨트 구동장치(174)를 가지는 보조 벨트 장치(170)를 추가로 구비하는 전계방사장치.

**대표도**



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

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

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

Nanofiber Filter with excellent permeability and perfect protection from water and dust, used in AirQUEEN Masks, is the fruit of LEMON, a company listed through KOSDAQ, researching and developing nano fiber technology for 14 years

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

- Proven suitable for ISO 9001 quality management system
- Proven suitable for ISO 14001 environment management system



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





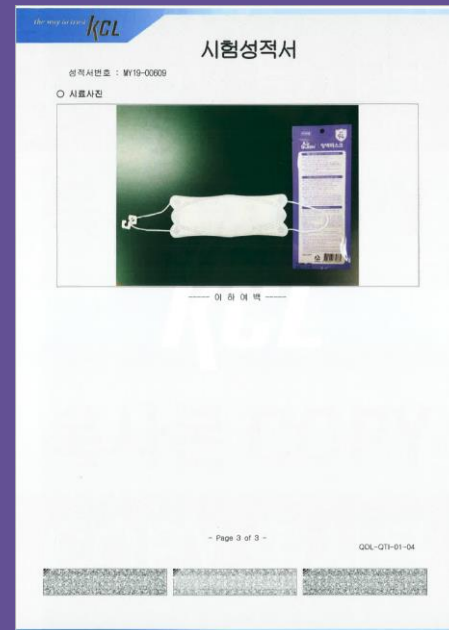
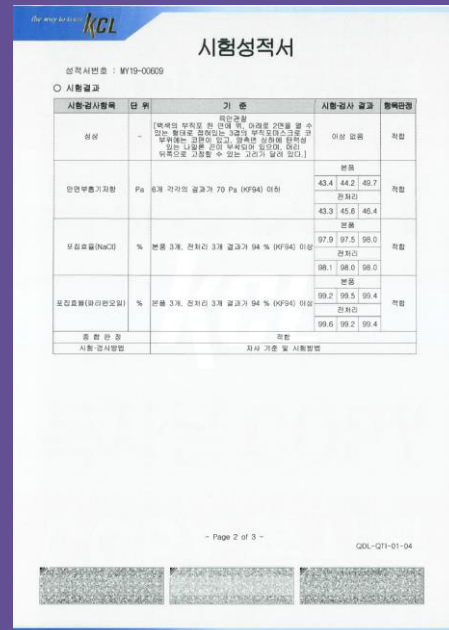
# AirQUEEN Nano Mask is an industrial product that passed the tests of KEMTI and is [ currently in process ] of being approved by the MFDS

AirQUEEN Nano Mask is a product that applied for the KF approval at the MFDS early April of 202 after passing the test done by KEMTI, 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

\* Korea Environment Merchandise Testing Institute, KEMTI



We are currently also waiting for the result of N95 and CE certification.

## 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 Nano Mask

SOOMLAB is a partner of LEMON that joint-developed the Hyper Purifying Breathing mask that has exclusive sales right online, and is the official distribution and sales company of TOPTEC AirQUEEN Nano Mask.

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

[ AirQUEEN Mask mass purchase inquiry ]

Email: [m.alfardan@airqueen.com](mailto:m.alfardan@airqueen.com)

