DIGITAL INNOVATION GROUP

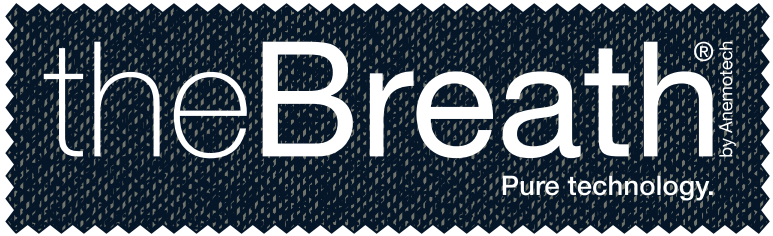
theBreath®

by Anemotech

Pure technology.


“There’s so much pollution in the air now
that if it weren’t for our lungs
there’d be no place to put it all.”
Robert Orben


theBreath®
it traps pollution and purifies air.


theBreath®
by Anemotech
Pure technology.

theBreath

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theBreath®,
is the result
of the research
by **Anemotech®**.

An all-Italian company
that since 2014 has had
a very specific mission:
studying and developing
products aimed
at enhancing people's
quality of life.

Anemotech®





Made in Italy
with an international breath.

theBreath

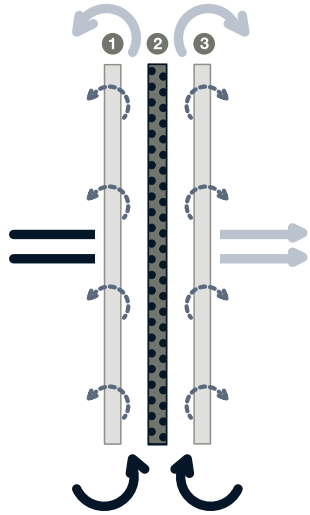
A simply **revolutionary technology**.

the**Breath**® is an innovative patented fabric designed to absorb and disaggregate harmful particles present in the air; a technology that helps to fight domestic and atmospheric pollution caused by cars, heating systems and industrial emissions.



theBreath

The purification:
3 layers that work in synergy.



The air, with its natural movement, flows tangentially and/or passes through the three layers, returning to circulation cleaner and more breathable.

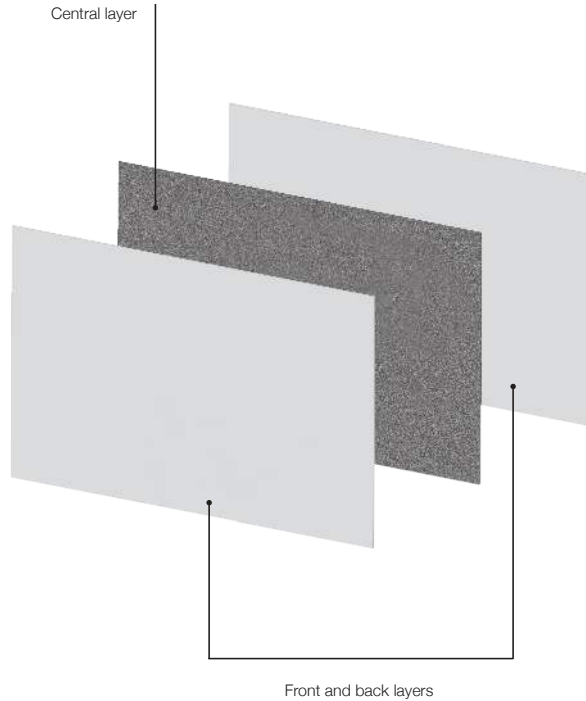
A process as light **as air**.

the**Breath**® purification process is completely passive and it uses the natural flow of the air without additional energy sources.

1. **FRONT LAYER**
   Printable, bacteriostatic, antiviral and fungicidal, it helps air transpiration.

2. **CORE LAYER**
   A carbon mesh that absorbs, traps and disaggregates polluting molecules and bad smells.

3. **BACK LAYER**
   Printable, bacteriostatic, antiviral and fungicidal.




love is in **the air**.
Follow us on



the**Breath®**, pure wellness.

The carbon mesh traps the polluting molecules inside its structure and prevents them from being released back. They are absorbed and disaggregated.

adsorbing

Thanks to the properties of the outermost layers of the fabric, it eliminates and prevents the action of any harmful organism, killing up to 98.7% of the viral load

biocidal



Silver ions incorporated into the fibers of the outer fabric exert an effective control over Gram-positive and Gram-negative bacteria and on certain types of fungi.

bacteriostatic



It does not use external electrical
or fossil energy sources and has a low environmental impact and sustainable performances.

energy free



It does not simply cover or reduce smells, but it also disaggregates molecules thanks to its carbon mesh, freeing the air from unpleasant emissions.

anti-odor



the**Breath®**
A valid ally for all towns with high traffic density.

Piazza Della Cancelleria
Rome

By URBAN VISION

POLLUTANT	AIRC* CLASSIFICATION	WHERE IS IT?	WHAT DOES THE POLLUTANT CAUSE
FORMALDEHYDE (CH_2O)	**1**	Furnishings - Coatings - Floor covering - Cleaning Liquids and Products	**Eye, nasal and throat irritation, fatigue and skin erythema.** Formaldehyde is one of the most involved agents in the Sick Building Syndrome. Morover, IARC define Formaldehyde as one of the certain carcinogenic substances.
BENZENE (C_6H_6)	**1**	Gasoline - Cigarette smoke - Glues - Adhesives - Solvents- Paints - Buildings materials (immediatly after laying)	**Carcinogenic agent causing leukemia**
VOLATILE ORGANIC COMPOUNDS (VOC)	**1,3**	Cosmetics - Deodorants - Heating appliances - Cleaning materials - Glues - Adhesives - Solvents - Paints Clothes washed by a laundry - Cigarette smoke - Printers and photocopiers - Building materials - Furnishings - People in an indoor environment whose breath and body surface are polluting	**Sensorial discomforts up to severe alterations of the state of health**. Indoor they can have effects on many organs and apparatuses, especially on the central nervous system. Some of them are recognized as carcinogenic to humans (Benzene) or to animals (carbon tetrachloride, chloroform, trichloroethylene).
POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	**2**	Cigarette smoke - Kerosene boilers - Fireplaces - Fumes coming from cooking and grills	They are higly carcinogenic and are present in the indoor air; they are partially present in the vapor phase and partially absorbed by particulate matter. **They can cause skin cancers by contact and lung cancers when inhaled.**
NITRIC OXIDE (NO_x)	**2A**	Kerosene radiators - Heaters - Gas radiators without external exahust system - Tobacco smoke - Cooking with gas coocker - Vehicles	They have a pungent smell and cause eye, nasal and throat irritation as well as cough. **Alterations in the respiratory functions can occur in sensitive individuals such as children, and people suffering from asthma or chronic bronchitis.**
SOLPHUR OXIDES (SO_x)	**2A**	Kerosene radiators - Heaters - Gas radiators without external exahust system - Tobacco smoke - Cooking with gas coocker - Vehicles	They produce the same biological and health effects of the nitric oxides. At low concentrations their **effects are mainly linked to diseases of the respiratory system such as bronchitis, asthma, tracheitis and skin, eye, and mucous memmbrane irritations.**
OZONE (O_x)	**-**	INDOOR: Laser photocopiers and fax machines - Ultraviolet rays - Electrical filter for air cleaning - Fumes from cooking - Spray - Any type of working electrical appliance. OUTDOOR: Combustion engines - Volcanic emissions - Industrial plants - Heating system.	**It can cause irritations to the eye mucous membranes and to the upper respiratory tracts, cough, broncho-obstructive phenomena and alterations in the respiratory function.** In the epidemiologic studies carried out on urban populations exposed to Oxone, irritative symptons werte observed with regard to the eye mucous membranes and to the upper respiratory tract. These were caused by an exposition for some hours to Ozone levels starting from o,2 mg/m3.

* IARC (International Agency for Research on Cancer) classification of the substances by groups according to the carcinogenicity level showed in scientific studies. 1) Recognized carcinogen 2A) Possible carcinogen 2B) Suspected carcinogen 3) Not classifiable as carcinogen 4) Non-carcinogenic.

theBreath

Efficient **absorption**.

Taking as a reference the data released by the University scientific research, below we provide the absorption values resulting from tests realized according to the provisions specified in the certificated standards.

The studies on the effectiveness of the**Breath**® were developed in collaboration with Università Politecnica delle Marche - SIMAU (Scienze e Ingegneria della Materia, dell'Ambiente e dell'Urbanistica - Science, Matter Engineering, Environment and Urbanism) Department.
Tests were realized following the international standards UNI, ISO, ANSI.





POLLUTANT		ABSORPTION
VOLATILE ORGANIC COMPOUNDS (VOC)	Toluene (C_7H_8) Heptane (C_7H_{16})	**Up to 97,2%** **Up to 96,8%**
FORMALDEHYDE (CH_2O)		**Up to 92, 2%**
SULPHUR OXIDE (SO2)		**Up to 91,5%**
NITRIC OXIDE (NO_x)		**Up to 86,8%**
BENZENE (C6H6)		**Up to 62 %**

Absorption table based on the Standards UNI 11247 / ANSI/AHAM AC-1-2002 / ISO 16000-9



It is not important where you breathe, **but what you breathe**.

the**Breath**® is highly effective in case of usage in indoor places such as houses, schools, offices, hospitals and means of transport, as well as in outdoor places in our towns.

indoor

In commercial and residential building, such as paintings, furniture and many other applications. The fabric reduces the polluting substances generated by heating systems and chemical products.

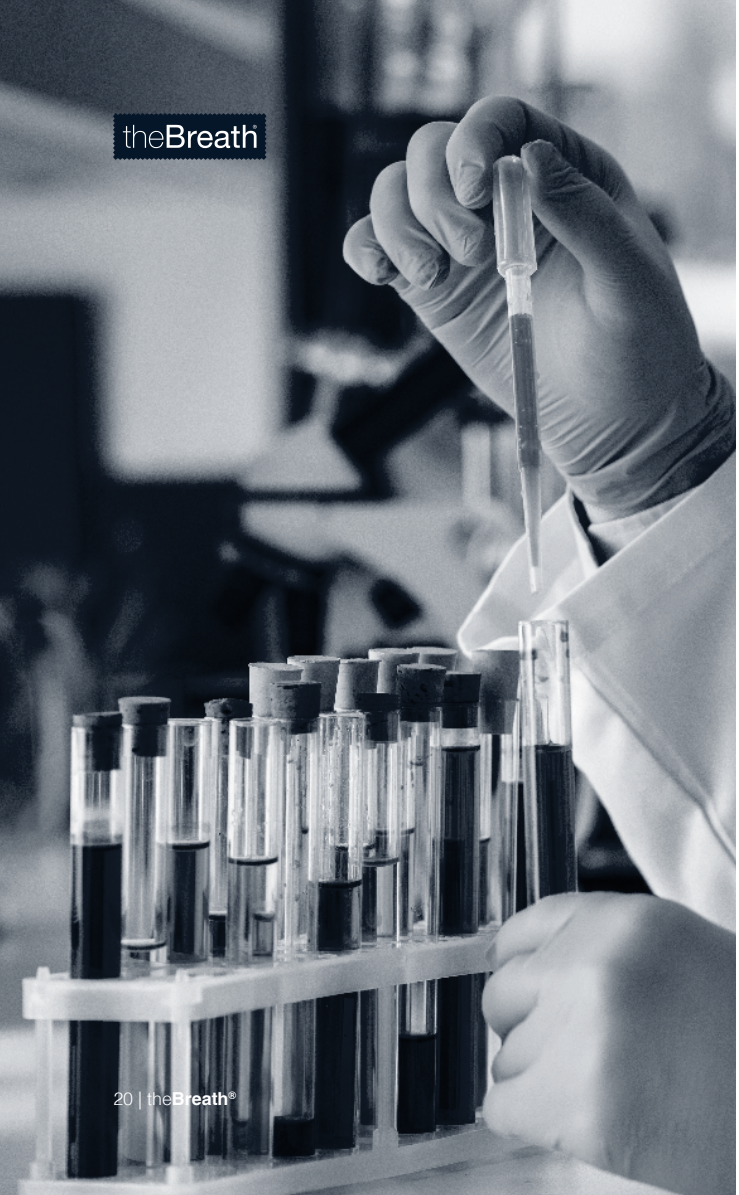
outdoor

Along roads and highways, on buildings, worksites, advertising placards, street furniture, road signs, worksite fences, and near air conditioners and flue pipes of the boilers.

Leicester Square
London

By URBAN VISION


TOXIC EXHALATI
OFF
URBAN VISION HAS WRAPPED
THIS BUILDING WITH THE BREATH.
A SMART FABRIC
THAT ABSORBS POLLUTION
AND HELPS TO CLEAN OUR AIR.
URBAN VISION
URBAN VISION
WELCOME TO
Crest
50% OFF
THEATRE TICKETS
50%



Tests and certifications
Safety and Health Protection.

the**Breath**® passed the tests on product performance and obtained important certifications:

ISO 16000-9
Test used to define the specific flow by emission surface of the volatile organic compounds (VOC's) generated by newly produced building products or finishing products in certain climatic conditions.

UNI 11247
Test used to define the photocatalytic abatement index of the nitric oxides in the air which are produced by inorganic materials.

ANSI/AHAMAC-1-2002 TEST
Method assessing the performances of the domestic air purifiers.

ISO 18184:2019
Determination of antiviral activity of textile products.

Oeko-Tex®

UNI EN ISO 3071:2006

BVL B 82.02-8 – 2001

RAfPS GS 2014:01

MIP 132:2014 Rev.0

DIN 54232:2010

ISO 18254-1:2016

UNI EN ISO 14184-1:2011

UNI EN 14362-1:2017

ISO 20743:2013

ISO 14001 CERTIFICATION EUROPE™

For a better environmental management.

ISO 45001 CERTIFICATION EUROPE™

For occupational safety and health protection.

ISO 9001 CERTIFICATION EUROPE™

For the quality of the business processes.

Acknowledgements



Sette Green Awards

In 2016, thanks to the**Breath**®, Università Politecnica delle Marche won *SetteGreen Awards*, a competition organized by Corriere della Sera, which awards Italian excellences in the field of scientific research for the Environment.

SETTE GREEN - Il Corriere della Sera 25/11/2016



Start Up of Green Economy

Anemotech® is recognized among the first ten Italian Companies for sustainable development Start Up sector of Green Economy.

Rimini Fiera during di Ecomondo 2016

London NewsOnline

the**Breath**®, the British!

the**Breath**® technology is presented in an article by Jack Dixon who, while speaking about the great London's problems, explains how the**Breath**® works, as well as its effectiveness and its advantages in its application in Leicester Square.

London News Online 28/02/2017

Science Publications

From overseas

Years dedicated to study and develop this technology enables us to publish an important scientific article in a leading US scientific magazine, the *American Journal of Environmental Sciences*, which maintains the important result obtained with regard to the reduction of the air pollutants.

Paper ID 0179 ISBN: 978-83-7947-232-1

Ideas & Future

With the innovative fabric the**Breath**®, Anemotech is among the magnificent 7 of the Mario Unnia - Talento & Impresa Award, promoted and organized by BDO Italia. The company wins the award for the category "Ideas and Future" for the Prize third edition, awarded in 2019 in Milan at Palazzo Mezzanotte, Borsa Italiana headquarters.

Adnkronos – 25/06/2019

the**Breath**® among Young Innovators

Assigned in Montecitorio the National Award for Young Innovators promoted by ANGI, an association dedicated to the world of innovation in all of its forms. Containing an avant-garde technology capable of absorbing polluted air and then immediately putting it back into circulation clean and purified, theBreath® fabric was among the winners.

Agenzia Stampa DIRE – 14/12/2018


theBreath
Pure technology
QUESTO PANNELLO RIDUCE LO SMOG.

theBreath

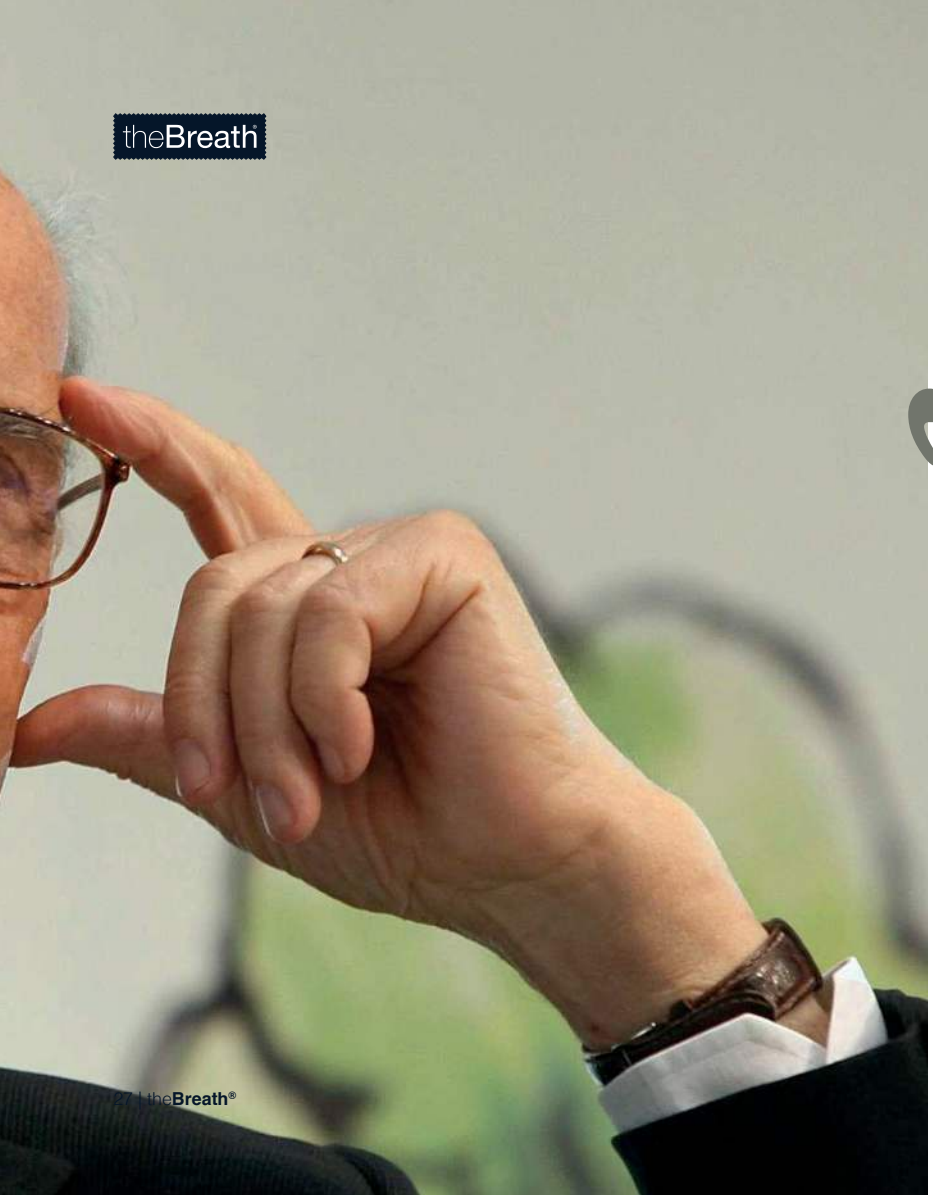
Umberto Veronesi

A very special friend who we will always remember with great appreciation.

*"I consider the**Breath**® a simple, ecologic and effective solution because it is sufficiently validated and it stresses the importance of the prevention of diseases of the respiratory system; it wanted to work with Anemotech by contributing to its diffusion [...]*

Today having the chance to enjoy a safer, more breathable air is a priority or society [...]"





"I got closely involved with Anemotech, as I believe they are a group of researchers, engineers, scientists, of men who care about public health. "

Umberto Veronesi*, the**Breath**®

YouTube **FUORI TG RAI3** 13/06/2016

*** Umberto Veronesi** *has been an Italian oncologist and politician. Former Minister of Health of the Italian Government (2000-2001). He founded and has been Scientific Director of the European Institute of Oncology (1994-2016) and former Scientific Director of the National Institute of Oncology of Milan (1976-1994)*

theBreath

Indoor
applications.

the**Breath**® is a technology that can be perfectly used in public and private indoor spaces to reduce the pollutants caused by heating, allergens, chemical products and fine particulates.

Especially in public places, like hospitals, offices and schools, the**Breath**® can be used as a valid printing support for informative or teaching material.

the**Breath**® is an indispensable tool for professionals working in the furnishing industry, such as designers and architects, to enrich their projects with ethical contents linked to the environment and the innovation.




theBreath®
Pure technology.
THIS FABRIC ABSORBS POLLUTION.







Indoor applications

School
Sustainability lesson.

the**Breath**® is like a *painting* on the perimeter walls of the classroom. Its surface is completely free and customizable:
- for didactics
- with images and texts of the relevant school

There will be the**Breath® logo with the claim explaining the benefit of the product.**

Child care
A protected walk.

The usage of the**Breath**® to coat strollers and baby carriages will guarantee the protection of the baby during walks in areas contaminated by fine particulates caused by the discharge of oils.

Automotive industry
A more relaxing driving.

the**Breath**®, placed in the passenger compartment, efficiently absorbs the harmful pollutants in our cars, removes bad smells and makes the environment healthier.



Residential
New air at home.

the**Breath**® combines efficiency and aesthetics and becomes an item very much in demand of the best international architects and designers who are always looking for innovation and eco-sustainable solutions. Actually, thanks to its innovative structure it can be used to coat and create objects in houses and offices that enhance the air quality.



Offices
Working in a healthier place.

According to the Consolidated Law on the protection of workers, each safety representative shall guarantee a health working environment to his/her co-workers.

Did you know that…?

In work places with high printing volumes, the**Breath**® can be placed near these areas or on dividing walls specifically built to continuously absorb pollutants present in the air.

> "In a room where there are photocopiers with toners, volatile harmful substances are released."


ON/OFF

theBreath

Outdoor applications.

The air in our towns becomes more and more harmful and polluted: smog and fine particulates, boiler and air conditioners emissions.

the**Breath**® located in strategic places is the ideal ally for a safer air: along the main roads, on advertisement billboards, worksite fences, and maxi-placards, in parks and near street furniture, as well as in the road signs.



Via della Liberazione
Milan

By URBAN VISION


LICITÀ NON VENDE AUTO.
E 409.704 IN UN ANNO.
AZZO URBAN VISION HA SCELTO THE BREATH®,
L'INQUINAMENTO E PULISCE L'ARIA.
URBAN VISION

Maxi-placards
A great breath.

the**Breath**® is constantly being developed in the market of the maxi-placards at worksites. Leading national and international companies decided to link their brand to a more responsible and sustainable advertising activity and they now use our technology as the basic system of their communication.

Why choose the**Breath**®**:**
- for a healthier environment for those who work on scaffolds;
- to reduce pollutants for the surfaces under renovation;
- to reduce the Canyon effect in favor of the citizen's wellness.

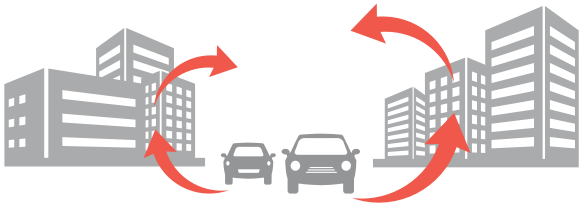


Street forniture
Streets free from smog.

Buildings, billdboards, road signs and much more: the efficiency of the**Breath**® is such that it can also be used in open city spaces and along arterial roads, through different and completely customizable urban applications.

One of the applications with the greatest impact on improving air quality in cities is the use of the**Breath**® fabric in fencing systems for construction sites to ensure a zero-impact site in terms of absorbing pollutants emitted.
Also, the**Breath**® perfectly integrates with the street furniture of our towns and becomes a protection against the fine particulates for those who walk in the streets and in the nearby areas.

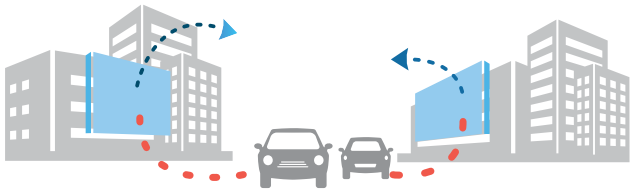
The urban **Canyon effect**



Towns usually have **temperatures a little bit higher** than **the surroundings because there is less vegetation** and **materials absorbing sun rays are used.**

Materials constantly overheat and cool down and creates air currents which remain **“entrapped”** along high buildings.
In these air currents the concentration of harmful* pollutants is very high.

the**Breath**® effect



the**Breath**® properly **installed in those areas, in which the Canyon effect occurs, increases its absorption capacity** as the polluted air moves towards the**Breath**® fabric.

Therefore, air passes through the fabric mesh, it is cleaned and purified from pollutants and start recirculating more breathable.

*Carbon monoxide Nitrogen dioxide (NO2) Tropospheric ozone. Particulate matter (PM10, PM0,1 and PM2,5) Sulphur dioxide (S02) Hydrocarbons and Lead.

the**Breath**® figures

theBreath®

10
SQM/YEAR

ABSORPTION PROJECTION WITH
10 SQM the**Breath**® **FABRIC** ON AN ANNUAL BASIS **

1450
Diesel Engine

3625
Gasoline Engine

15
Boilers

- DIESEL CAR About 1,450 diesel cars referred to the NO2 emission
- GASOLINE CAR About 3,625 gasoline cars referred to the VOC emissions
- ABOUT 15 BOILERS referred to the NO2 emissions

Absorption projection based on real test carried out in the city centre of Milan, on annual basis. The benefits regarding the cars eliminated by the Breath**® panels refers to the area within the**Breath**® installation where cars circulate. The larger the panels the better the elimination effects in a larger area.



Piazza del Parlamento
Rome

By URBAN VISION

DIG Digital Innovation Group Ltd is the Authorised Representative and Exclusive Distributor of theBreath in Cyprus

DIG DIGITAL INNOVATION GROUP | theBreath® by Anemotech Pure technology.

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