

DECEMBER 2015

# VILEDON NEWS

IN FOCUS: PARTICULATE MATTER

## TINY PARTICLES: BIG IMPACT.

STUDIES PROVE THAT PARTICULATE MATTER SHORTENS OUR LIFE EXPECTANCY



Particulate matter is dangerous – in fact, deadly. These fine particles shorten life expectancy in the European Union (EU) by around 8.6 months. An estimated 348,000 people in the EU die prematurely each year as a result of particulate matter. Worldwide that number is around 3.3 million, according to the latest cal-

culations by the Max Planck Institute for Chemistry, based in Mainz, Germany.

The negative list is long: respiratory symptoms, reinforcement of atherosclerosis, allergy symptoms, asthma, heart disease, premature birth, Alzheimer's, heart attack and lung cancer. Time and again, research-

ers are proving a connection between particulate matter and a wide variety of diseases. It has also been proved that anyone who breathes air loaded with particulate matter over an extended period has an increased risk of heart attack – even if that loading is below the current EU limit values. Results of this kind give weight to the World Health Organization (WHO), which is calling for lower limits than the EU.

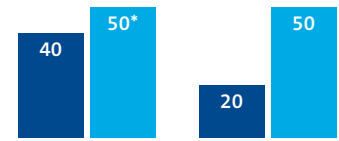
### Doubly dangerous

Inhalation of particulate matter is extremely problematic for two reasons. Firstly, dangerous substances can adhere to the surface of the smallest particles, which are then inhaled. Examples include heavy metals (lead, vanadium, beryllium and mercury) or carcinogenic polycyclic aromatic hydrocarbons. Secondly, due to their small size, the finest particles constitute a threat in themselves. Because they cannot be intercepted by the nose, mouth and throat, they enter the lungs through inhalation and can cause inflammation of the lung tissue.

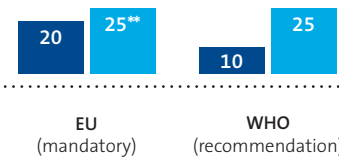
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## PARTICULATE MATTER LIMIT VALUES: EU AND WHO

### PM 10



### PM 2.5



■ Annual mean value ■ Daily mean value

Values in micrograms per cubic meter

\* May be exceeded on 35 days per year

\*\* Target value, mandatory from 1 January 2015

Valid as of 2014; Source: WHO, EU (Directive 2008/50/EC)

### The smaller the more dangerous

Particles up to a size of 10 micrometers (PM 10) reach the upper region of the lung. Fine particles smaller than 2.5 microns (PM 2.5) penetrate the central region of the lung. Ultrafine particles, smaller than 0.1 microns, can even enter the alveoli and spread through the bloodstream in the body. That means that the smaller the particles, the easier it is for them to enter the body and cause damage there.

### Protection indoors

The threat posed by particulate matter does not stop indoors. The burden of particles and noxious gases is usually even greater indoors than out. According to the German Federal Environment Agency, the average fine dust concentration in rooms with smooth floors is around 60 micro-

grams per cubic meter. This means that the EU limit value for PM 10 (50 micrograms per cubic meter) is exceeded daily by 10 micrograms. To that can be added the fact that we spend about 90 percent of our time indoors.

Against this background, reliable filtration solutions are required for the protection of people, such as those developed by Freudenberg Filtration Technologies for a variety of different areas. These include, for example, filters for laser printers, air cleaners and ventilation systems for hospitals or production halls. People are the focus of these solutions because there is no argument that particulate matter shortens our lives and the reduction of small particles can demonstrably ameliorate this situation. This is where we need to work. ■

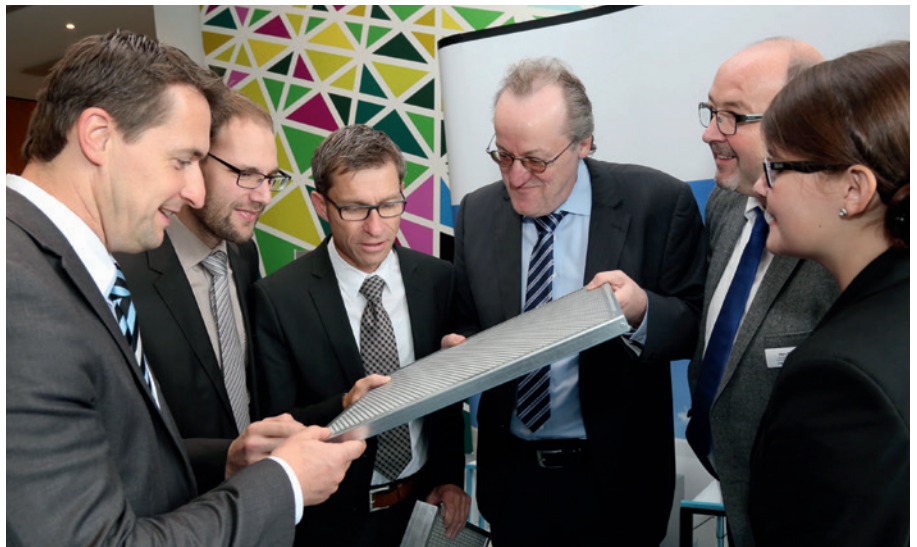
## SURFACE TREATMENT

# PAINTING INNOVATIONS IN FOCUS

## WEINHEIM SURFACE TREATMENT DAYS GENERATE NEW IMPULSES

New insights and a lively exchange of ideas have come to characterize the Weinheim Surface Treatment Days. This event has become one of the most important meetings of experts in surface treatment and coatings in Germany.

Around 60 participants and 10 speakers met at the offices of Freudenberg Filtration Technologies to learn more about the current issues and trends in the industry and to exchange ideas. Topics extended from the latest developments within European standardization for painting facilities, to innovative methods for curing lacquered surfaces using UV-LEDs. This meeting of experts once again proved a success for all participants. Plans are already being made for the Weinheim Surface Treatment Days 2017. ■



Many experts, one theme: trends in surface treatment



Stimulating lectures provided participants with new insights



Keynote speaker: Damir Wagner, Dürr Systems GmbH

# CONCENTRATED EXPERTISE

## EXPANDED PORTFOLIO FOR THE FOOD AND BEVERAGES INDUSTRIES



**Positive news for the food and beverages industries: Freudenberg Filtration Technologies has extended its offering through a collaboration with ultrafilter GmbH. The aim is to further increase the attractiveness of the offer through a targeted expansion of the portfolio.**

“With ultrafilter, we have found a company that shares our high quality standards and meaningfully complements our core competencies in the field of filtration for the beverage and food industries”, commented Otto Fritz, Sales Director Germany / Export. Dean Kronsbein, CEO of ultrafilter, sees it the same way: “Freudenberg Filtration Technologies is the expert in atmospheric filtration. Our focus is on the development and manufacture of filters, dryers and equipment for preparing compressed media such as compressed air, technical gases and liquids. Together with Freudenberg, we can offer complete solutions along the entire filtration value chain.”

### Focus on quality

Based in Hilden near Dusseldorf, Germany, the family-owned company is a good fit for Freudenberg. ultrafilter’s philosophy is “Everywhere a little better than the competition” and the quality of their service and products is correspondingly high.



Dean Kronsbein,  
founder and CEO of ultrafilter

“Our compressed air components are produced exclusively from stainless steel and aluminum in Germany. Each product is tested and documented for the warranted characteristics in a continuous validation program. This enables us to guarantee absolutely reliable and energy-optimized solutions”, explained Kronsbein. This quality assurance is essential, especially for the high demands of food and beverage production and thus plays a key role with Freudenberg Filtration Technologies.

The cooperation between the two industrial filtration specialists provides the food and beverages industries with the option of complete solutions for the reliable removal of particles, oil and water droplets and for the sterile processing of compressed air. ■

### ultrafilter GmbH: Freudenberg partner

With headquarters in Hilden, Germany, this family-owned company is one of the world’s most innovative manufacturers of high-performance filters and processing components for compressed air, technical gases and liquids. With its own sales force and independent distributors, ultrafilter is active in 48 countries across the globe.

### COMPANY

## STRONG BRAND? SHOW IT!

### CUSTOMER INFORMATION AND GUIDELINES FOR THE NEW PRODUCT BRANDS

A brand is especially strong if it has a uniform and consistent presence everywhere. This is naturally also true for the two product brands Viledon® and micronAir®, which were revised in the course of Freudenberg’s new corporate design. We have created customer information and application guides for everyone who uses our logos in their communications. These provide information about the new brand identity and de-

scribe simply and clearly what to look out for when using it. Please download these two documents from our website. Thank you for your support. ■

[www.freudenberg-filter.com](http://www.freudenberg-filter.com)  
> Download Center  
> Customer Information



# THANK YOU FOR 2015

A successful year lies behind us. I would like to thank you, our customers, for the confidence you have placed in us and the exciting projects that we successfully master together. Of course, I would like to thank our colleagues too, who accept every challenge with great enthusiasm and energy and who remain passionately committed to our theme of industrial filtration.

The past year has shown us once again how important product quality is to you – in all segments. This confirms to us the value of our efforts to focus uncompromisingly on high-quality solutions.

We are firmly convinced that each filter must be 100 percent reliable in every situation. In addition to product quality, we place particular value on a service-oriented approach. Your requirements are the focus of our efforts, which we aim to further strengthen across all segments next year.

Our goal is to continue to jointly develop innovations with you in close partnership – fully in line with the new slogan “INNOVATING TOGETHER”, which is shared as a promise by all companies of the Freudenberg Group.

I wish you all, valued customers and colleagues alike, a very Merry Christmas and a good start to the coming year.

With best wishes,



Dr. Daniel Schmitt  
Global Vice President Industrial Filtration



## TRADE FAIRS AND EVENTS

Meet us here in 2016:

**February 24–26, 2016**

International Power Summit 2016, Spain

**February 25–27, 2016**

ACREX India – Trade fair for air conditioning, cooling and construction services, India

**April 19–21, 2016**

POWTECH – World-leading trade fair for processing, analysis and handling of powder and bulk solids  
Nuremberg, Germany

**April 19–22, 2016**

PaintExpo – Leading international trade fair for industrial coating technology, Karlsruhe, Germany

**May 30–June 03, 2016**

IFAT – World’s leading trade fair for water, sewage, waste and raw materials management, Munich, Germany

**May 31–June 02, 2016**

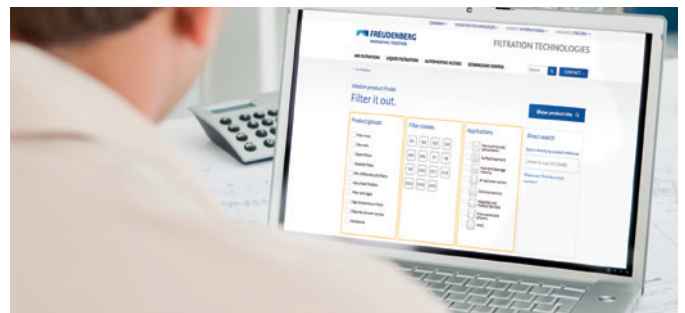
O&S – International trade fair for surface treatments and coatings, Stuttgart, Germany

**September 06–07, 2016**

Viledon® Academy: Turbomachinery Days 2016,  
Weinheim, Germany

## IN BRIEF

# FIND FILTERS MORE EASILY



Enter your search criteria in our new Product Finder: e.g., product group, application area and filter class. The correct filter for your needs will be immediately displayed. This can be done even faster using the new item number entry function.

Try it for yourself:

[www.freudenberg-filter.com](http://www.freudenberg-filter.com)  
> Product Finder

Test our new product pages and win!

Tell us what you think of our Product Finder and our new product pages in a short survey by **January 31, 2016** and you could win one of **five high-quality JBL Bluetooth speakers**.



Take part now:  
[www.freudenberg-filter.com](http://www.freudenberg-filter.com)



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