

INDA's e-Filter Newsletter

The Filtration Industry's Information Hub

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Welcome to e-FILTER, sponsored by INDA, Association of the Nonwoven Fabrics Industry (www.inda.org). It is sent every other month to executives within the global filtration business and focuses on the latest news, new products, patents, legislative issues and commentary in the filtration industry. Check out the information at the end of this newsletter on how to subscribe or submit your company's information for inclusion.

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INDA NEWS

MARK YOUR CALENDARS FOR FILTRATION '09

As the business of filtration continues to play an even more important role in industrial and consumer applications in every corner of the globe, the Filtration 2009 International Conference & Exposition – the world's largest filtration event – will bring thousands of industry professionals to Chicago's Navy Pier for a three-day Conference and trade show.

Scheduled for November 17-19 in the Windy City, more than 100 exhibitors from all links in the filter supply chain will be showcasing the latest products, technologies and end products for filtration; while an extensive three-day Conference Program will cover diverse aspects of filtration technology, new products and research.

INDA, Association of the Nonwoven Fabrics Industry, the organizer of the annual event, expects close to 1700 attendees from 30 countries to gather in Chicago for Filtration 2009 to network, attend the Conference and walk the aisles of the Navy Pier exhibition hall.

“As it returns to Chicago after a successful show in Philadelphia last year, Filtration 2009 will certainly live up to its reputation as the most important and largest gathering of the global filtration business this year,” says INDA President Rory Holmes.

And, Holmes points out, Filtration 2009 comes at a time when the products made and sold by exhibitors and attendees are taking on increased importance in our everyday lives. “As the colder weather approaches, the industry focus is once again going to be on interior air quality as well as the improvement in individual health with control of airborne particulates and diseases. The business of filtration is at the forefront of this battle and it will certainly be a topic of discussion at Filtration 2009.”

The Filtration show rotates between the Midwest and the Northeast and, as a result, each year fifty percent of the attendees are new from the previous show. This allows for a unique exchange of ideas among attendees and exhibitors while facilitating meetings among the local business community every two years.

In addition to the Exposition, the Filtration 2009 Conference will provide insight into the latest technical developments in filtration from some of the industry's leading companies and research institutions.

“The Filtration 2009 Conference is the best place in the world this year for filtration executives to learn about the developments that will continue to drive this business in the 21st Century,” adds Holmes. “The Conference this year is highlighting Opportunities and Value sessions as well as a new segment on Gas Phase Filtration. We have two keynote speakers, Rick Eastman from Baird Securities and Ben DuPont from yet2.com.”

Always one of the highlights of Filtration 2009 will be the annual Best Booth Competition, which will recognize the best booths in both the Large and Small Booth categories. This gives all exhibitors the opportunity to be recognized for the effort they put into their displays at Filtration 2009.

For more information on the Filtration 2009 International Conference & Exposition: <http://www.inda.org/events/filt09/index.html>

TIME IS RUNNING OUT FOR 2010 VISIONARY AWARD NOMINATIONS

Don't miss your chance to nominate your favorite nonwoven product for the prestigious 2010 Visionary Award. Nominations for this coveted award, which recognizes consumer end products that utilize nonwoven fabrics or employ nonwoven technology during their manufacturing process, are open until September 1.

The 2010 Visionary Award will be presented at the VISION 2010 Consumer Products Conference, January 20-22, 2010, which will once again be held at the Sheraton Canal Street in New Orleans, La.

Last January at the VISION 2009 Conference in New Orleans, the Disruptor nonwoven water filter media from Ahlstrom was named the recipient of the 2009 Visionary Award.

Other previous recipients of the coveted Visionary Award include Kimberly-Clark's SpaSensials spa treatment (2008); Tyco Swim Pants (2007); Chicopee's Disaster Relief Blanket (2006); Fiberweb's Resolution Print Media (2005); Church & Dwight's Brillo Scrub 'n' Toss (2004); FMJ ChemBio's Civilian Quick Escape Mask (2003); and Procter & Gamble's Swiffer (2002).

The process and criteria for the 2010 Visionary Award are simple:

1. The finished consumer end product must contain a nonwoven fabric or utilize a nonwoven technology during its manufacturing process.
2. The consumer product has to have been introduced to the trade or to consumers in 2008-09.
3. The product cannot have been selected as a finalist in any previous Visionary Award competition.
4. Companies can nominate their own products. While any number of products can be nominated, only one product per company will be selected as a finalist.

Products will be judged on their novel use of nonwoven technology, as well as on their consumer and trade acceptance. Eligible consumer product categories include disposable diapers, feminine hygiene products, adult incontinence products, household wipes and home filters, among others.

The nominees will then be reviewed by an INDA selection committee and finalists will be selected to make presentations at the VISION 2010 Consumer Products Conference. Conference attendees will then vote on the recipient of the award and the recipient is announced on the final day of the VISION 2010 Consumer Products Conference.

To nominate a product, email an explanation of the product to Michael Jacobsen, Visionary Awards coordinator, at [mjacobson@inda.org](mailto:mjacobsen@inda.org). Samples of the product should also be sent to Michael Jacobsen, INDA, 22 Paterson Avenue, Midland Park, NJ 07432 USA.

Call 201-612-6601 with any questions. For more information on the Vision 2010 Consumer Products Conference, log on to www.inda.org.

FILTRATION INDUSTRY NEWS

OBAMA STIMULUS PLAN'S FIRST CLEANER SCHOOL BUS

The California Air Resources Board and the San Diego Air Pollution Control Board unveiled one of the first school buses in the country to be retrofitted with a pollution control device using American Recovery and Reinvestment Act (economic stimulus) funding from the U.S. Environmental Protection Agency.

This funding will allow the San Diego Unified School District to clean up an additional ten school buses, leaving only seven of its 519-bus fleet without this advanced diesel particulate filtration.

“School buses should be a happy sight in a community,” said Shelia Jackson, President of the SDUSD Board of Education. “Our clean fleet ensures that's the case and we'd like to thank our federal and state partners for helping clean up our communities.”

In addition, through their efforts, the San Diego Air Pollution Control District and SDUSD are using this stimulus funding to create or sustain jobs in the manufacturing sector and, with the school district's Automotive Technology Program, paving the way for a greener workforce for tomorrow.

“The state and its school children thank the Obama Administration for sending this funding our way to clean up older, dirty diesel school buses,” said ARB Chairman Mary Nichols. “San Diego officials, in particular, wasted no time in parlaying this money into real, on-the-ground projects that are providing jobs and protecting children's lungs at the same time.”

Today's announcement marks the launch of a state-wide effort, as part of the Diesel Emission Reduction Act State Clean Diesel Program, being implemented by the ARB and other state partners to retrofit more than 80 school buses throughout California with \$1.73 Million USEPA American Recovery and Reinvestment Act funding.

In December, the ARB adopted a first-in-the-nation requirement that calls for the nearly one million trucks and buses driving California roadways be

retrofitted and that all older, dirtier engines be replaced over the next several years. The regulation is expected to prevent 4,500 premature deaths, 71,000 cases of asthma and lower respiratory systems and 450,000 work days lost once fully implemented.

CULLIGAN REDEFINES INDUSTRIAL WATER TREATMENT WITH MATRIX SOLUTIONS

Culligan, a leading global innovator of advanced water softening and filtration solutions for more than 70 years, has just redefined industrial water treatment with the introduction of its new Culligan Matrix Solutions. As a water treatment partner to hundreds of manufacturing companies around the world, Culligan has combined best practices based on decades of experience engineering industrial water treatment systems that help manufacturers to eliminate costly water problems by minimizing waste in the first place, extend the performance of their equipment, reduce maintenance costs and improve operational efficiency. The Matrix Solution uses Culligan's electronic controls for reverse osmosis and water softening technologies to provide a custom-designed system that meets these goals. And, through water re-use and brine reclamation, Culligan helps manufacturers improve environmental compliance and sustainability.

“Manufacturing companies today require end-to-end water treatment systems that are delivered faster, better and less expensive. With our global supply chain, Culligan Matrix Solutions deliver on all three with a single-source, comprehensive technology platform that addresses a complete range of water treatment applications,” said Rod McNelly, Vice President Commercial & Industrial Sales, Culligan - North America. Culligan's new Matrix Solutions feature modular technologies that are pre-configured to work together on a simple global platform. These integrated components can be readily “mixed and matched” to meet specific water treatment needs for manufacturers. Because of this flexible design, Matrix Solutions are built, delivered and installed at a plant much quicker than comparable systems, ensuring the right contaminants are removed and the right water quality is achieved without delay.

Advanced electronic capabilities such as remote monitoring and telemetry options allow Matrix to operate at utmost efficiency and continuously provide high water quality. This helps avert system failure, therefore reducing potential production delays and possible product recalls. For manufacturers, minimizing production downtime reduces business risk. And, consistency of water quality in the production process means finished goods get out the door faster, accelerating the sales cycle and revenue capture. Significant savings occur when manufacturing companies are able to audit, measure and justify their capital equipment expenditures against desired results. The cost-effective modular design of Culligan's Matrix Solutions takes into account both capital and operating costs.

The new system also helps manufacturers to improve their profitability by optimizing limited water resources. Using these types of water treatment technologies, Culligan customers typically can expect to achieve ROI savings,

including energy consumption, labor and maintenance costs and compliance with EPA regulations, in less than one year.

FILTER COMPANIES STRUGGLE WITH ECONOMIC CHALLENGES

We all know the economy is challenging many companies and the filter industry is not exempt. According to recent stock reports, U.S. manufacturer Pall Corporation reported that its profits dropped 30% in the most recent quarter as the prolonged global recession took a toll on demand for its filtration products. The company reported a fiscal third-quarter profit of \$44.2 million, or 37 cents a share, down from \$63.3 million, or 51 cents a share last year. Sales fell 16% to \$555.9 million.

Additionally, Donaldson Co., another player in the air and liquid filtration market, cut its 2009 profit outlook, citing persistent weakness in its end markets. Shares fell 2.6% to \$32.29.

On a slightly brighter note, Porvair reported an operating loss for the first six months of 2009, but said it had seen some stabilization in the business. The filtration specialist said sales in its U.S. metals filtration division were down about 35%, but the second half would be boosted by new orders in the UK and lower costs in the United States.

FIBERWEB TO INVEST IN NEW MELTBLOWN CAPACITY

Roll goods producer Fiberweb has revealed plans to invest in a significant melt blown capacity expansion at the company's Biesheim, France facility. The investment will significantly increase its capacity for production of air filtration media used in medical facemasks, respirators and HVAC applications.

The Biesheim operation has been manufacturing specialized melt blown products for over 18 years and will utilize this expertise to facilitate increased production of superior quality materials.

Fiberweb expects the new capacity to be operational in January, 2010 and has already received commitments from several key customers that require increased amounts of the filter media. Industry statistics indicate the specialty air filtration business continues to grow despite the global economic slow down and with this investment Fiberweb will be well positioned to support that growth.

AIM FILTERTECH ADDS HILLS LINE IN INDIA

Aim Filtertech has added a state-of-the-art bicomponent meltblown line in Pune, India. The line, supplied by U.S.-based Hills Inc., can make 750 tons of 1.6-meter-wide nonwovens per year. Hills' proprietary meltblown die technology will allow Aim Filtertech to tailor make meltblown media with fiber sizes ranging from submicron to several microns to fulfill a range of end-use performance needs for various air and liquid filtration media. The line can process a range of

conventional polymers such as PP, PE and engineer polymers such as PBT, PPS and TPE.

AVANTI TO LAUNCH FIRST NORTH AMERICAN LINE

With more than 15 years of experience as an importer of spunbond nonwovens, Avanti Manufacturing, headquartered in Cranbury, NJ, is transitioning into the manufacturing arena. The company is establishing its first nonwovens production facility, which will be based in Clarksville, TN and have a capacity of 4500 metric tons per year. The plant will begin commercial production of polypropylene spunbond nonwovens this month and represents a \$13 million capital investment that is expected to create 30 jobs by the end of the second year of operations.

The line is a four-beam Impianti system designed to produce materials in 96-inch widths that target industrial applications such as landscaping, bedding and mattress, filtration and others. Based in Italy, Impianti has sold more than 60 machines. Fabric specifications will include color, topical treatment, UV additives, slitting/rewinding and custom packaging. The company will service customers within a geographical target area of 500-750 miles.

“Impianti's technology is designed for use in the industrial rather than hygiene segment—another reason for us to choose this machine,” said Ash Mehta of Avanti. Commenting on the company's strategy, Mr. Ash added, “We chose Tennessee because of its central location. Backward integration will offer us less dependence on overseas suppliers.”

FILTER PATENT REVIEW

Composite porous membrane and method for producing the same

Pub Number: US7562778

Applicant: Mitsubishi Rayon Co., Ltd.

Inventors: Shinada, Katsuhiko, Murase, Kei, Yamada, Teruyuki, Shirasu, Yuuichi, Mizuta, Masahiko, Fujiki, Hiroyuki

Abstract: An object of the present invention is to provide a composite porous membrane, which has not only excellent filtration capacity, but also excellent adhesion between a porous membrane and a braid and mechanical properties, and a method for producing the composite porous membrane. The present invention relates to a composite porous membrane comprising a braid, and a membrane material; wherein the membrane material comprises a first porous layer comprising a dense layer which is arranged on the outer surface of the braid, and a second porous layer comprising a dense layer which is arranged on the first porous layer, and a method for producing the composite porous membrane.

Tackified air filtration media and a self-supporting filter having improved stiffness and foldability

Pub Number: WO2009060118

Applicant: Ahlstrom Corporation

Inventors: Duello, Leonard, Hawkins, Thomas, Peart, Christopher, Nance, Nathaniel

Abstract: The present disclosure relates generally to a nonwoven filtration media comprising a bonded mix of different, discontinuous, thermoplastic resin fibers and optionally discontinuous cellulosic fibers. In some embodiments a tackifier is added to the nonwoven filtration media to provide a sticky or adhesive surface on the fibers. The nonwoven media has an advantageous combination of stiffness, foldability, efficiency and the ability to retain a fold. The nonwoven media can be thermally bonded during the production process. The advantageous combination of mechanical properties allow the disclosed nonwoven media to accept and retain folds and pleats better than some conventional filtration materials while the mix of different fibers provides desirable filtration properties.

Composite nonwoven fibrous webs and methods of making and use the same

Pub Number: WO2009085679

Applicant: 3M Innovative Properties Company

Inventors: Moore, Eric, Berrigan, Michael

Abstract: The disclosure relates to composite nonwoven fibrous webs including a population of sub-micrometer fibers having a median diameter less than one micrometer, and a population of microfibers having a median diameter of at least 1 micrometer. At least one of the fiber populations is oriented, and each composite nonwoven fibrous web has a thickness and exhibits a solidity of less than 10%. The disclosure also relates to methods of making composite nonwoven fibrous webs, and articles including composite nonwoven fibrous webs made according to the methods. In exemplary applications, the articles may be used as gas filtration articles, liquid filtration articles, sound absorption articles, surface cleaning articles, cellular growth support articles, drug delivery articles, personal hygiene articles, or wound dressing articles.

Nonwoven composites and related products and processes

Pub Number: US7550117

Applicant: GEO2 Technologies, Inc.

Inventors: Alward, Gordon, DiChiara, Jr., Robert

Abstract: The present invention in certain embodiments is directed to a catalytic substrate suitable for use in a number of applications, including as a substrate in a catalytic converter or a particulate filter. Another aspect of the present invention is a filtering substrate suitable for use in a number of applications, including as a substrate in a particulate filter, such as a diesel particulate filter (DPF), or diesel particulate trap (DPT). The invention also provides an improved substrate for removing and/or eliminating pollutants from the exhaust of combustion engines. The catalytic substrate and filtering substrate provide, in certain embodiments, improvements in removing pollutants from an exhaust gas. The improvements include one or more of the following: faster light-off period, depth filtration of PM, less backpressure, lower

probability of clogging, ability to be placed in multiple locations in the exhaust system including the manifold or the head itself, high probability of catalytic reaction, high conversion ratios of NO_x, HC, and CO, a faster burnoff of PM, minimization of catalyst material use, and the like.

Mixed fibers and nonwoven fabrics made from the same

Pub Number: WO2009029391

Applicant: North Carolina State University

Inventor: Pourdeyhimi, Behnam

Abstract: The subject matter disclosed herein relates generally to the production of a predetermined ratio of multicomponent fibers in combination with mono component fibers or other multicomponent fibers, preferably through a spunbonding process. After extrusion, these fibers can produce a fiber network that is subsequently bonded to produce a nonwoven fabric comprising multiple types of fibers. The multicomponent fibers within the network may be processed to remove one component by dissolution or to split the individual components into separate fibers. As a result, the fabric will be comprised of fibers with a range of diameters (micro- or nano-denier fibers as well as higher denier fibers) such that the fibers will not pack as tightly as in a homogeneous nonwoven fabric produced from one type of mono component or multicomponent fiber. The present invention additionally relates to methods for producing nonwoven fabrics with increased loft, breathability, strength, compressive properties, and filtration efficiency.

A nonwoven for air filtration and a preparation method thereof

Pub Number: WO2009078642

Applicant: Kolon Industries

Inventors: Choi, Jin-Hwan, Kim, Jin-Il, Lee, Sang-Mok

Abstract: The present invention relates to a spunbonded filament nonwoven fabric and a method of preparing the same, and particularly to a multilayered spunbonded filament nonwoven fabric of which the fineness of the filaments decreases from an air inlet part toward an air outlet part, and a method of preparing the same. The spunbonded nonwoven fabric of the present invention can be used as an air filter for power generation equipment for a gas turbine, because it can reduce a pressure loss, promote filter efficiency, and extend the lifetime for use by using fiber layers having different denier.

INDA MEETING SCHEDULE

2009

[INDA Nonwovens Course](#), September 15-17, INDA Headquarters, Cary, North Carolina

[INTC 2009 International Nonwovens Technical Conference](#), September 21-24, Grand Hyatt Denver Downtown, Denver, Colorado

[Filtration 2009 International Conference & Expo](#), November 17-19, Navy Pier, Chicago, Illinois

2010

[Vision 2010 Consumer Products Conference](#), Sheraton New Orleans, New Orleans, Louisiana

[IDEA 2010 International Conference & Expo](#), April 27-29, Miami Beach Convention Center, Miami Beach, Florida

[INDA Nonwovens Training Course](#), May 11-13, INDA Headquarters, Cary, North Carolina

[INDA Elementary Training Course](#), June 8-9, INDA Headquarters, Cary, North Carolina

[World of Wipes \(WOW\) 2010 Conference](#), June 21-23, InterContinental Chicago, Chicago, Illinois

[INDA Nonwovens Training Course](#), August 17-19, INDA Headquarters, Cary, North Carolina

[International Nonwovens Technical Conference \(INTC\) 2010](#), September 20-23, Hilton Baltimore, Baltimore, Maryland

[INDA Nonwovens Training Course](#), October 19-21, INDA Headquarters, Cary, North Carolina

[Filtration 2010 International Conference & Exposition](#), November 30-December 2, Pennsylvania Convention Center, Philadelphia, Pennsylvania

THAT'S ALL, FOR THIS MONTH ...

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Any company with news for the INDA e-FILTER Newsletter, or any individual with something they want to say to the industry, should send an email to Michael Jacobsen, INDA, at [mjacobson@inda.org](mailto:mjacobsen@inda.org); 201-612-6601; Fax 201-612-6677.