



The IDEA07 show in Miami Beach, FL USA hosted 400 exhibitors, and nearly 6,000 attendees from over 50 countries.

•INDA website

The Achievement Awards are presented at each IDEA to recognize the best products introduced since the previous IDEA.

•Nonwovens Industry Magazine

"IDEA07 is the only place this year that the entire industry is in one place at the same time and it is appropriate that the Achievement Awards be presented here because these companies and individuals have contributed greatly to the advancement of our industry."

•Rory Holmes of INDA

THE HOTTEST THING ON SOUTH BEACH Filtration Group's GeoPleat® Receives IDEA07 Achievement Award

The prestigious IDEA07 Achievement Awards recognize the best new products and technical developments introduced in the past three years. The awards were presented in six different categories during a special ceremony on the opening day of IDEA07 International Engineered Fabrics Conference and Exposition, April 24, 2007, in Miami Beach, FL.

Filtration Group's new GeoPleat® High Efficiency Air Filter was the big winner among hundreds of product submissions in the Long-Life End Product category, topping other industry leaders and finalists, DuPont and Shaw Innovation Flooring Systems. The GeoPleat filter is a dynamic blending of a nonwoven filtration material and advanced thermo embossing pleating technology patented by LPD Technologies, Inc. The resulting product greatly reduces energy consumption while providing high levels of air filtration and enhancing Indoor Air Quality (IAQ).

"Winning the IDEA07 Achievement Award is a great honor for Filtration Group. We appreciate the recognition for our innovation," said Eugene Beck, director of sales & marketing for Filtration Group who was in Miami to receive the award. "It is very rewarding when industry peers applaud the countless hours and the hard work required for new product development and marketing," adds Beck.

The Achievement Awards began at IDEA04, and are co-sponsored by the Association of the Nonwoven Fabrics Industry (INDA) and Nonwovens Industry magazine. Categories include; Short-Life End Product, Long-Life End Product, Roll Goods, Raw Materials, and Machinery/Equipment. Industry member voting determined the winners in each category. The Achievement Awards take place every three years, with the next scheduled for year 2010.



The GeoPleat is Filtration Group's flagship product when working with the LEED Green Building Rating System™. The GeoPleat achieves MERV 14 efficiency, offers an extremely low resistance to air flow, and the compact design uses 50% less material than traditional filters. The GeoPleat is the ultimate in "green" technology for air filtration.

Filtration Group has manufacturing operations in the United States, Europe, Canada, and China. The GeoPleat is now available worldwide.

LPD is a registered trademark of LPD Technologies, Inc.

For more information visit our website at www.filtrationgroup.com.

MATT MIDDLEBROOKS JOINS FILTRATION GROUP'S ENGINEERING DEPARTMENT



Filtration Group's (FGI) engineering department is committed to hiring the best and the brightest industry talent in the United States, Europe and around the world. The demand for research & development, testing, technical support, and application analysis is insatiable for both particulate and molecular air filtration. FGI and Filtrair already boast some of the best minds in the industry, and are always

searching for quality individuals that strengthen the engineering team.

Matt Middlebrooks meets that criterion and then some. Matt joined Filtration Group in May 2007 as a senior product engineer, bringing with him a wealth of technical industry knowledge and product development experience. He received his Bachelors, graduating *magna cum laude*, and Masters of Science in Chemical Engineering from Clemson University in South Carolina. Matt has extensive knowledge in airborne molecular contamination control, technical media development, and HEPA

grade filtration. His responsibilities will cover several key products, including the popular HEGA® line of high efficiency gas adsorber filters.

He is also a recognized industry leader actively serving organizations such as; ISEA (Vice Chair of ANSI 110 Committee), ASHRAE (Secretary of TC 2.3 and Voting Member of TC 9.11), IEST (Chair of WG CC-035), INDA (Filtration Committee), sharing FGI's philosophy of active involvement in the filtration technical community.

"Matt's contributions in the area of airborne molecular contamination control have been particularly significant for general HVAC and cleanroom applications. FGI is eager to support Matt as he builds on those efforts in the years ahead," said Phil Winters, director of engineering for Filtration Group.

Filtration Group is known for new product development and being the first to the market with innovative concepts and the latest technology. Matt's technical experience and background will help continue FGI's engineering edge.

Matt's office is located in the York, SC Filtration Group & Filtrair facility.





FilterTalk

Summer 2007

GOT A QUESTION FOR US?

Q. What is "Particle Bounce" and how does it occur?

A. We tend to think of the capturing of particulate in an air filter as an irreversible action where once dust is trapped it remains captured within the filter until it is disposed. This is often not the case, especially with non adhesive coated fibers. Particle Bounce is basically a sub category under particulate shedding of an air filter, and specifically refers to the loss of particles that impinge on the filter structure without being retained. Ultimately the captured particle could reenter the air stream.

A particle becomes permanently captured by a fiber if the forces of adhesion between the fiber and the particle are equal to or greater than the drag force of the air as it moves past the fiber-particle zone. The energy of adhesion on small particles and low air velocities greatly exceeds the kinetic energy of the airborne particle in the air stream. Once captured such particles are therefore unlikely to be dislodged again. As particle size and air velocity increase, this is progressively less so. Larger particles and any particles in a high air velocity stream have a greater chance to be bounced off of a fiber instead of being captured by it.

Particle Bounce is most prominent among MERV 1-8 efficiency ranges and can be significantly increased by; increased air velocities, smooth surfaced fibers with no adhesive applied, dry dust with a reduced tendency to stick to a fiber, and mechanical instability of the filter medium. Research indicates a significant reduction in filter efficiency in the particle size range 2 to 10 µm, which is most probably caused by this effect. By applying a tackifier (adhesive) to the fiber a significant reduction to the particle bounce can be achieved.

For expanded information on this topic contact us at: filtertalk@filtrationgroup.com

Product Spotlight: GeoPleat® Brings Home the Hardware

The concept of the award winning GeoPleat is simple, advanced geometric designs painstakingly calibrated to minimize resistance to air flow coupled with the latest in high efficiency media technology. Whether it is a race car, jet airplane, or speed boat the design ultimately reaches the same conclusion, reduce resistance and improve performance. In this regard the GeoPleat is the most advanced high efficiency filter available.



(Winner IDEA07 Achievement Award for best new product – Long Life Category)

The design of the GeoPleat is perfect for the green conscience of today. It uses less than half of the raw materials of a traditional 12" metal cartridge filter while actually reducing energy consumption. The compact design reduces disposal volume by 67%, and the extreme light weight makes it safe and more comfortable to install. GeoPleat can be very effective tool in obtaining LEED™ certification as well.

State-of-the-Art design, cost effective, reduced energy consumption, safe, user friendly, environmentally sound, and extremely rugged....no wonder it's winning awards!

WHAT DOES IT MEAN TO BE "GREEN"?

The color green represents harmony, growth, abundance, vitality, healing, and nature. It also represents money, prosperity, conservation, and implies wealth. Green is the easiest color on the eye, refreshing and calming. People waiting to appear on TV sit in a "green room" to relax.

Today's business world has focused on the word "Green" to represent all of the above. It is possible to live and work in an environment that promotes health and sustainability while simultaneously being so efficient that it is more cost effective to be green than to not be. In the high efficiency air-filter industry the word "Green" is most typically associated with the U.S. Green Building Council (USGBC) and its Leadership in Energy and Environmental Design (LEED) Green Building Rating System™.

U.S. Green Building Council



The USGBC has more than 9,000 members and a network of 75 regional chapters making it the nation's foremost coalition with leaders from every sector of the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.

To quote the Council, "The U.S. Green Building Council's core purpose is to transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life."

What is LEED®?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. The LEED Rating System was created to transform the built environment to sustainability by providing the building industry with consistent, credible standards for what constitutes a green building. LEED provides guidance to all building types, and

currently has 9 specific programs including: New Construction and Major Renovation, Existing Building Operation & Maintenance, Schools, and Retail. Programs for Healthcare Facilities and Laboratories are currently under development.



The ABN-AMRO LaSalle Bank Building in downtown Chicago, IL is a LEED-EB 2.0 (existing building) registered project.

Role of Air Filtration

Air filtration is an important and integral part of any attempt to create a healthy and enjoyable living environment. Airborne dusts, allergens, pollutants, smoke, and odors all must be captured and removed from the air stream. Air filters that provide high levels of efficiency in removing microscopic and even gaseous particles are required. When you think about it, what good is a "Green" environment if the air is not clean? LEED specifically recognizes MERV 13 (ASHRAE Std. 52.2) or higher rated filters as the benchmark for air filtration efficiencies.

Filtration Group's state-of-the-art high efficiency air filters can provide very high levels of air cleaning, while simultaneously lowering the system pressure drop. Lowering the resistance can substantially reduce energy and disposal costs, another target of LEED. Let us help you make your Green Building the best it can be.



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