



INNOVATIONS FOR LIVING™

COMPOSITE SOLUTIONS

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BIG NEWS ABOUT SMALL

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A MESSAGE FROM CHUCK DANA

PRESIDENT, COMPOSITE SOLUTIONS BUSINESS, OWENS CORNING



Welcome to this fourth edition of *Composite Solutions* magazine. As I write this message in early October we look forward to seeing many of you this month at *Composites & Polycon 2006*. There is much to talk about during that time.

One topic sure to get lots of discussion is the joint announcement with Saint-Gobain that we are planning to merge the Owens Corning Reinforcements Business and the Saint-Gobain Reinforcements and Composites Businesses known as Vetrotex.

As I reported in the previous issue, the combined enterprise will be stronger and able to do much more to advance the industry than either business could alone. There are obvious benefits for customers, such as the expanded global manufacturing, distribution and service presence, and the accelerated pace and synergies we expect from a combined technology team. We look forward to having a strengthened ability to work with you in developing new applications that replace aluminum, steel and wood.

The transaction is on schedule to close in early 2007. In the meantime, Owens Corning and Saint-Gobain Vetrotex will operate our businesses separately. We are and must remain competitors until the transaction is finalized and approved by the competition regulators.

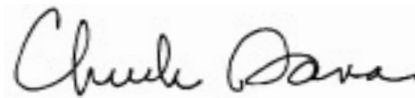
To answer more questions about the planned merger this issue includes an interview with me on pages 6 and 7. If your question is not addressed anywhere in this publication, let me know and I will see that you get an answer.

As we move forward on the path to commercializing our new high performance HiPer-tex™ reinforcement platform with WindStrand™ reinforcements and fabrics, we are also introducing several new platforms and products for high performance thermoplastics. The innovative technology reflected in these new platforms and products, which are featured in a report on pages 8 and 9, come largely through our acquisition in Japan earlier this year.

On page 10 you will find a preview of our booth at *Composites & Polycon 2006*, along with a list of the related technical papers our people are presenting in St. Louis with others. Our team looks forward to seeing you there. If you are not attending, we hope there will be another opportunity to talk with you soon.

As always, we welcome your feedback.

Sincerely,





OWENS CORNING BUSY AT CHINA COMPOSITES

Owens Corning was certainly active in early September at *China Composites Expo 2006* in Shanghai. In addition to having one of the largest product and application displays in the exhibition hall, the company's leaders and product specialists also made a total of six presentations at general and technical sessions.

The list of Owens Corning speakers, their topics and sessions were:

- Chuck Dana, Composite Solutions Business President, spoke at a general session with other industry officials and company representatives. His topic was "Green Asia: Why Composites are Key to a Sustainable Future."
- Dana and Karl Jin, who leads the company's composites business in China, participated with other industry leaders in a roundtable discussion on the future of the composites industry in China; the session was sponsored by Owens Corning.
- Gary Nieman, Vice President and Managing Director, Asia Pacific Composites, presented opening remarks and introduced the principal speakers at a Building and Construction Summit sponsored by Owens Corning.
- Helen Wu, Applications Development Manager for Building and Construction, Asia Pacific Composites, made a presentation on the performance benefits of composites at the Building and Construction Summit.

- Tony Gu (Gu Fang Ming), Composite Solutions Development Leader, Asia Pacific Science & Technology, made a presentation titled "HiPer-tex™: The New High Performance Reinforcement from Owens Corning for Stiffer, Stronger, Lighter Composite Applications."
- Wu Wei Liang, Technical Manager, Asia Pacific Composites, made a presentation about the company's Hipergron™ Thermoplastic Composite Platform, a new high-glass-fiber-content thermoplastic composite that is a high-strength alternative to thermoset composites and steel.

In opening his remarks at the general session, Dana said "It's incredibly exciting to be standing here today – in China – in one of the fastest growing markets in the world – in the company of other leading organizations focused on growing the industry – to be representing both the American Composites Industry Association, and Owens Corning – and to be a representative of an industry that can play such a crucial role in changing the sustainable future of this great country and helping to conserve its resources."

GLOBAL NEWS ROUNDUP



OWENS CORNING SET TO EMERGE FROM CHAPTER 11

Following a confirmation hearing held Sept. 18, Judge Judith Fitzgerald approved the Owens Corning plan of reorganization on behalf of the Delaware Bankruptcy Court. If all goes as expected, the company will emerge from Chapter 11 before the end of October 2006. The company is now assembling the cash, issuing the new stock it will distribute and making distributions to creditors.

"We are getting down to the last few steps in a very complex six-year journey," said Dave Brown, President and CEO.

"We are looking forward to having it behind us."



OWENS CORNING AND BMCi ESTABLISH DEVELOPMENT VENTURE

Owens Corning and Bulk Molding Compounds, Inc. of West Chicago, Ill., have established a joint venture to help speed the development of thermoset composite bulk molding compounds ("BMC") as a material of choice against steel, wood and aluminum.

Named FastTrak Application Development LLC, the joint venture is initially focused on the North American market. It is based in Addison, Ill., near BMCi's headquarters, and is focused on application developments that help manufacturers adopt BMC and realize benefits of composites versus traditional materials.

"We're committed to growing and developing the use of composites, and by pooling our strengths to drive applications in the BMC market we help grow applications in the entire industry," said Jeff Boersma, Vice President and Managing Director of the North American Composites Solutions Business for Owens Corning.



LATIN AMERICA BUSINESS MOVES

The Owens Corning Latin America headquarters has moved from Mexico City to Monterrey. This relocates the Latin America offices to the heart of the decision-making centers of customers and other key players in the building materials and composites industries.

"The move will allow us to build stronger relationships with key customers and companies in our industry," said Carlos Valdez, Vice President and Managing Director. "The move had been in our plans for some time, but with the successful implementation of SAP in Mexico – the last step in the integration of OC Mexico into Owens Corning – we are confident we can execute a smooth transition."

DR. WOLF RECEIVES GLASS INDUSTRY HONOR

Dr. Warren W. Wolf, retired Owens Corning Vice President and Chief Scientist Emeritus, has received the glass industry's prestigious Phoenix Award.

Dr. Wolf retired from Owens Corning in 2001 after 33 years of service. He is the 36th Phoenix Award winner and the third individual from Owens Corning to receive the honor. The others from Owens Corning were Dr. Fay V. Tooley, Director of Research and Development in the early 1940s before returning to the University of Illinois as Professor of Glass Technology, the first winner of the award; and William W. Boeschstein, Chairman and Chief Executive Officer when he received the honor in 1985.

MERGER QUESTIONS & ANSWERS

In July, Owens Corning and Saint-Gobain jointly reported talks aimed at merging their reinforcement businesses into a new company called Owens Corning-Vetrotex Reinforcements. Both companies have since received many questions from customers so we sat down to discuss them with Chuck Dana, President of the Owens Corning Composite Solutions Business, who will lead the joint venture as Chief Executive Officer. Following are highlights from that discussion.

Q What is the most frequently asked question or comment you have heard since the announcement?

A Early on, people were very surprised because Owens Corning and Vetrotex have been such fierce competitors for so many years. It shocked many of them to learn that we are planning to merge parts of the two businesses. I'm sure people on both sides will be a little uneasy when the merger is completed and we meet face-to-face to start working together. It's bound to feel a little strange. But once people get past the surprise, they quickly see that the joint venture makes a lot of sense.

Q Was meeting with Saint-Gobain to talk about a possible merger an uncomfortable experience for you?

A Not really. The merger talks were not the first time we met or talked. The two companies have been working together since we joined forces three years ago to build a manufacturing plant for reinforcements in Mexico (Xicohtencatl, Tlaxcala). That operation had a rocky start-up but we were able to work very well together to fix the problems and create what is now a world-class, state-of-the-art production facility. It was a challenging experience but we learned from it that we can work together and we have complementary skills and technology. Having said that, however, both Saint-Gobain and Owens Corning are and must remain competitors in the industry until the transaction is finalized and approved by the competition regulators.

Q What do you mean by complementary skills and technology?

A One of our strengths at Owens Corning is our furnace and glass melting technology, with boron- and fluorine-free Advantex® glass being a prime example of that. Vetrotex, on the other hand, has unmatched expertise and technology in downstream fabrication of glass fibers. We put those two strengths together in Mexico to benefit our respective customers. Both companies developed their glass fiber reinforcement businesses at about the same time – more than 60 years ago – so there is a lot of technology and expertise within both companies. I am looking forward to seeing what we can come up with together, and how quickly we can get it to our customers.

Q With a proposed merger of the two leading companies in glass fiber reinforcements, some question whether there might be problems getting approval from antitrust agencies in the U.S. and Europe. How do you see that?

A I see a competitive landscape that is much larger than glass fiber reinforcements, and I see a competitive landscape that is changing rapidly and getting much tougher for the traditional materials suppliers. The composite businesses really compete with aluminum, concrete, steel and wood, and when you look at the market from that perspective, composites have in total about 1 percent of the market. The merger will increase competition with those traditional materials and help us work with our customers to grow the use of composites. Another point to consider is the rapid growth of fiberglass production in Asia Pacific. If you considered that capacity as one unit, it would be number one in size. The three largest producers in China alone now have a 13 percent global market share, which makes them third among the world's producers and they are growing fast. We expect to see more consolidation in the industry in the years ahead and I don't expect the antitrust agencies in our home countries doing anything that will hurt our ability to compete in the emerging world market for composites.

Q Some customers have voiced fears that the merger will result in higher prices to them and less flexibility when sourcing material. Should they be concerned?

A I certainly understand their feelings but there will still be plenty of options out there if they really want them. My goal is to make sure our combined customers don't want to go anywhere else. I want them to know we are committed to not only meeting their needs for product, service and competitive prices, but we are also committed to partnering with them to develop new applications and grow the overall market for composites. I see the proposed joint venture enabling us to deliver more value to our customers, whether it is through scale, logistics, innovation, productivity or price.

Q The joint news release said Saint-Gobain will have an option to sell their stake to Owens Corning. What does that mean?

A When the time is right and the financial situation is attractive enough, Saint-Gobain has the option of selling their portion of the joint venture to Owens Corning. If and when that happens, the joint venture becomes wholly owned by Owens Corning. Until then, both companies have an incentive to build the combination into a strong enterprise with attractive financial performance.

Q How will the new business be operated?
How will you manage the merged businesses?

A We haven't reached a definitive agreement yet but as indicated in the joint news release, we expect Owens Corning-Vetrotex Reinforcements will be headquartered in Toledo, Ohio, and maintain leadership offices in key locations around the world. The Board for the company is expected to have three representatives from Owens Corning and two from Saint-Gobain. I will be CEO and the organization will be managed by an executive management team comprised of key leaders from Owens Corning and Vetrotex. In September we announced the appointment of Raymund Trost as the Vice President of Human Resources for the Composite Solutions Business, including Owens Corning-Vetrotex. With this appointment we can continue to build the OC-V Leadership Team from the top talents of both Owens Corning and Vetrotex.

We also have in place a project team that is leading and managing all activities that will result in a smooth and successful closing of the merger. A very important piece of work in progress now is the so-called project due diligence, which means that both Owens Corning and Vetrotex are opening our books and facilities for the other party to verify and validate that they will receive what they expect to receive with the merger from a financial, environmental, manufacturing, legal, talent and overall support services perspective. This is a normal procedure for large transactions such as this one.

Q Some composite businesses of both companies will not be included in the merger. Can you explain why they won't be part of the joint venture?

A The joint venture is focused on the traditional forms of glass fiber reinforcements – roving, chopped strand, mats and so forth. Saint-Gobain is keeping its Textile Solutions business, which serves mainly construction markets, and Owens Corning will keep Veil Technologies and the Fabwel business serving the recreational vehicle and cargo trailer markets.

Q Do you have any other comments about the proposed merger?

A Well, right now on a personal level I am dealing with two very strong emotions. One is the anxiety that comes from knowing we have a tremendous amount of work to do before the transaction can be concluded, hopefully in early 2007. And then comes all the work of integrating the two businesses around the world. The other emotion I have is the pure excitement that comes from anticipating the learning experience we'll all go through as we join forces and begin working together. Vetrotex has been – and continues to be even as we speak – a very tough competitor. Seeing how well they have performed over the years, you just know they have a wealth of talent in that company. I have been impressed with the people I have met already and I can't wait to see what we can do when we have an opportunity to be allies instead of adversaries. That's exciting for the people of both companies as well as our customers. When I get tired from the work I think about the potential and I am energized again.



NEW REINFORCEMENT TECHNOLOGY FOR HIGH PERFORMANCE THERMOPLASTICS

RECENTLY ACQUIRED PRODUCTS NOW AVAILABLE IN ASIA, EUROPE AND THE AMERICAS



Owens Corning customers are beginning to understand what the company was talking about when it said the recent composites acquisition in Japan would bring access to new technology and a variety of breakthrough and leading-edge

products for reinforcing thermoplastic polymers. In September, the company began introducing globally a select group of products that embody new technology for reinforcing thermoplastics.

The new composite solutions include:

- **MicroMax™ Chopped Strands** – A breakthrough reinforcement that is enabling the continuation of miniaturization in advanced electronic components
- **PerforMax® HR Chopped Strands** – Hydrolysis-resistant reinforcements that help parts stand up to the newest and most advanced long-life coolants used in today's high-performance automobile engines
- **PerforMax® LG Chopped Strands** – An out-gassing-resistant reinforcement that enhances productivity by keeping molds cleaner
- **PerforMax® SP Chopped Strands** – Reinforcements for Specialty Engineering Polymers that are expected to tolerate very high temperature compounding and molding processes
- **OC Max™ Long-Fiber Thermoplastic** – An LFT compound that will help Asian customers bridge the performance gap between metal and reinforced thermoplastics

"These new products are all examples of the innovative technology we can leverage to expand the market for composite materials," said Chuck Dana, President, Owens Corning Composite Solutions Business. "The technical teams at Owens Corning and Asahi Fiber Glass Composites have done some very good work in recent years and their achievements are now available to customers everywhere."

Bijoy Mohan, Regional Marketing Director for Asia Pacific, said molder customers making parts for advanced electronics are delighted to have the new reinforcement that is enabling continued miniaturization.

"For many years now we have all seen electronic components like mobile phones and other hand-held devices get smaller and smaller," said Mohan. "With internal parts getting smaller and thinner, the market has reached a size threshold where standard reinforcements cannot be used because they will not flow and disperse as needed.

"MicroMax technology is now the only viable solution for achieving the balance of mechanical properties and the flow and dispersion that is needed," he added.



"The new product made at the plant in Ibaraki, Japan, has a special advanced binder and is available in filament diameters of six and seven microns. The reinforcement flows as needed in very small and thin parts and provides the required mechanical properties. As a result, electronics companies are able to adopt next-generation designs and continue the trend to miniaturization."

Mohan says the alternative was using very exotic and expensive thermoplastics that could achieve the needed strength and stiffness without reinforcement. By using the new reinforcement, molders are able to use resins they are already familiar with, such as LCP (liquid crystal polymer), PA (polyamide), PEEK (polyetheretherketone) and PPS (polyphenylene sulphide).

MicroMax chopped strands also offer other benefits such as improved weld line strength for automotive parts.

PerforMax HR chopped strands are hydrolysis-resistant reinforcements that enable molders of automotive radiator components to eliminate the costly additives they have been using to prevent long-term high-temperature fatigue. Owens Corning tests show that parts made with the new high-performance thermoplastic reinforcements exhibit less than half the long-term fatigue of parts made with competitive glass fiber reinforcements.

Mohan said glass fiber-reinforced nylon has been used successfully for many years in automotive radiator applications but cooling conditions have gotten increasingly severe with today's engines.

"As the auto makers push their engine designs to achieve higher performance and fuel economy, the engines tend to run hotter and need special coolants," he said. "Coolant manufacturers have added new chemicals to the mix, creating a more challenging environment for traditional resins and reinforcements."

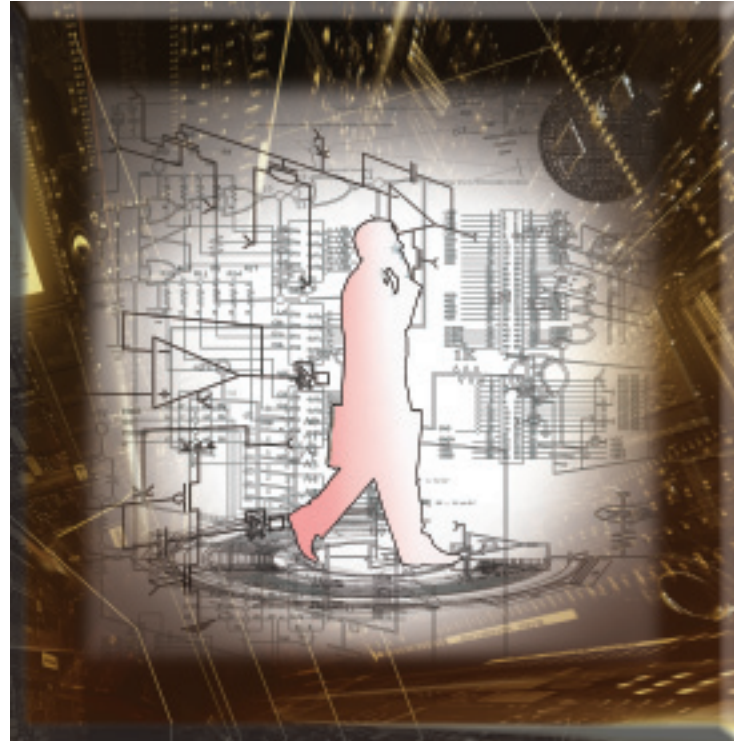
He said composite parts made with competitive materials have improved their performance with some long-life coolants but don't come close to *PerforMax* HR chopped strands when tested against the most advanced new coolants.

The out-gassing resistance of *PerforMax* LG chopped strands is especially important in small parts where gas residue can adhere to mold surfaces and require cleaning or produce unacceptable part surfaces. *PerforMax* LG reinforcements help keep molds clean and thereby improve surface quality and reduce cycle time.

PerforMax SP chopped strands are designed for use with specialty engineering polymers such as LCP, PPS and PEEK. The new reinforcements enable these polymers to maintain their superior properties under all conditions while at the same time offering properties of high fatigue resistance, low out-gassing and temperature resistance that are critical for many of the target applications.

"The market for these specialty polymers is growing beyond Asia Pacific into North America and Europe due to the continued development of new applications in electronics, automotive and advanced plumbing equipment," said Mohan. "Growth is also resulting from continued pressure on polymer applications to meet increasingly severe performance and processing conditions."

Mohan said properties of the new family of chopped strand products also make them attractive in other markets, such as in advanced consumer, medical and plumbing equipment.



OC Max long-fiber thermoplastic compound is available in China and other countries in Asia Pacific where the use of such compounds has not experienced the rapid growth seen in Europe and North America.

"Owens Corning technology has always been an enabler of LFTP in Europe and North America," says Mohan. "The technology is still relatively new in Asia and the *OC Max* compound made by Owens Corning in China and Japan will help customers in the region make larger semi-structural thermoplastic parts that have excellent combined stiffness and impact strength properties."

"These new reinforcement products are the latest examples of how we can use technology and innovation to enable new and better applications," said Dana. "The result we all want is continued growth for the composites industry."

For more information about these new products, contact Heather Yoo in Korea at 82.2.2050.7436, Hiromasa Suzuki in Japan at 81.3.5733.1684, Marco Zvanik in the U.S. at 1.214.495.8294, or Bernard Kaesmacher in Belgium at 32.4.388.47.14.

WE LOOK FORWARD TO SEEING YOU AT COMPOSITES & POLYCON 2006!



Owens Corning will be easy to find at *Composites & Polycon 2006* – you will see the company's bright red logo at booth space 801 just inside the main entrance to the exhibit hall.

Another large landmark to help you find your way will be an ME-412 composite super car prototype from DaimlerChrysler. Much smaller but no less important are samples of breakthrough and leading-edge reinforcement platforms and products for applications ranging in size from extremely small to very large.

The stars of the show for the large end of the spectrum are WindStrand™ roving and fabrics made with the company's new HiPer-tex™ reinforcement platform. The products were introduced at the European Wind Energy Conference in Athens at the end of February and this will be their debut appearance at a composites show in North America.

The new *HiPer-tex* reinforcement platform is a breakthrough because it delivers significant improvement in performance at an affordable cost to direct customers and end-users. *WindStrand* reinforcements will allow wind turbine manufacturers using glass reinforcements to increase blade lengths by as much as 6 percent and deliver up to 12 percent more power – for up to 20 percent less cost than any competing carbon-glass hybrid solution currently on the market.

At the other end of the size spectrum will be a group of products that embody new technology for reinforcing thermoplastics. The new composite solutions – featured in a separate article on the two previous pages – include MicroMax™ chopped strands, a breakthrough reinforcement that is enabling the continuation of miniaturization in advanced electronic components.

"Our customers are asking for solutions that will enable them to overcome current limitations," said Chuck Dana, President, Owens Corning Composite Solutions Business. "The innovative technology embodied in these new products and platforms does just that and presents game-changing opportunities for customers and end-users."

Other products on display include a new reinforcement for bulk molding compound, two long fiber thermoplastic reinforcements and a roving product for filament winding with epoxy resin.

Several technical presentations will be made by Owens Corning people and their co-authors. (See list on the following page.)

We look forward to spending some time with you at *Composites & Polycon 2006*. Have a safe journey.

NEW BLOG ADDRESSES COMPOSITE TECHNOLOGY IN WIND ENERGY

Wind Blade Technology Blog

A Forum About Composite Materials in Wind Turbines



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Owens Corning launched a new Web log – a shared online journal – for designers, engineers and other technical professionals who work with composite materials in wind energy.

Available at <http://windbladetechnology.owenscorningblog.com> the blog will be written and maintained by a team of six Owens Corning executives and engineers who are engaged in leading composite and wind energy projects around the world – Agusti Porta, Spain; Luc Peters and Georg Adolphs, Belgium; Tom DeMint and Wisdom Dzotsi, USA; and Edouard Zurstrassen, Brazil. The team expects to add a seventh member to represent Asia.

The blog's objective is to provide a world-class forum for exchanging information and ideas among the technical people who are making possible the wind energy market's rapid growth. The authors expect to share information and learn from readers with the ultimate goal of advancing wind energy by helping it become more cost competitive and widely used.

Comments, suggestions and questions are welcomed on the blog.

COME SEE US

The Owens Corning Composite Solutions Business will be at the following upcoming trade shows:

- **Composites & Polycon 2006 (ACMA)**,
October 18-20, St. Louis, Mo.
- **Feiplar Composites & Feipur**,
November 7-9, Sao Paulo, Brazil
- **JEC Composites 2007**,
April 3-5, 2007, Paris, France

Technical Papers at Feiplar Composites:

- **Development of the HiPer-tex™ Reinforcement Platform and WindStrand™ Roving and Fabrics**,
by Caio Luminatti, Product Engineer, Direct Rovings, Owens Corning Latin America

Technical Papers at Composites & Polycon 2006

- **Analysis of Wind Turbine Blade Failure Modes**,
by Dave Hartman, Research Associate
- **Structure-Property Relationships in Thermoplastic Composites**,
by Charlie Pratt, Research Associate
- **Vacuum Infusion for Wind Blade Manufacturing**,
by Tom DeMint, Product Engineer, Fabrics; Dave Hartman, Research Associate; and Georg Adolphs, Technical Sales Manager, Fabrics
- **Lighting Considerations to Optimize Human Performance**,
by Jeffrey Smagacz, Global Ergonomics Leader, Composite Solutions Business
- **Doing Business in India**,
by Satish G. Kulkarni, Managing Director of Owens Corning (India) Ltd.

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