

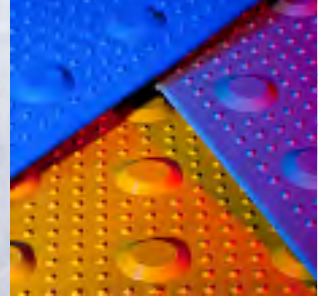
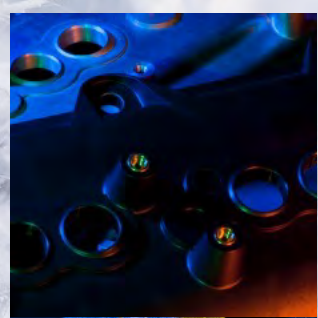


THERMO SETTINGS

YOUR SOURCE FOR THERMOSET TECHNOLOGY AND EVENTS

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LETTER FROM THE CHAIR

Happy Holidays from the SPE Thermoset Division



*The 2018 Thermoset TOPCON is around the corner. Register now on our [new website](#) for the February conference to be held in downtown Indy! **Free admission for OEMs.***

Dear Friends of the SPE Thermoset Division-

Steam is beginning to build for the SPE Thermoset Topical Conference being held in Indianapolis this year. By popular demand, we have brought our gathering back to the heartland and have chosen a lovely in-town spot called the Alexander Hotel. As with each of our annual projects, we have endeavored to locate a property with a bit of 'cool vibe' in a location advantageous to the more interesting and accommodating parts of the city. The Alexander should not disappoint!

As is the case every year, the

Division is seeking sponsorship to help cover venue expenses and build a fund for educational endowment. Importantly, the SPE Thermoset Division has engaged the University of Massachusetts, Lowell and will pay \$10,000 this spring for a curriculum to be written specifically around thermoset molding materials. Through our contact at the University, said class will be launched in the Spring semester of 2019 and will feature several guest speaker slots drawn from subject expert members of the SPE Thermoset Division. We are very excited about

this upgrade, but need to maintain an aggressive fund raising campaign to cover the costs associated.

I look forward to seeing all of you again at the Alexander Indianapolis at what has become the thermoset industry's singular event!

Sincerely Yours,

Len Nunnery,
SPE Thermoset Division Chair

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INDUSTRY NEWS

Huber Engineered Materials Appoints New President

Huber Engineered Materials (HEM), a leading global producer of specialty performance ingredients for industrial and consumer products and a division of the J.M. Huber Corporation (Huber), announces that Dan Krawczyk has been appointed HEM President, effective Nov. 1, 2017. Krawczyk remains a member of the HEM Board of Directors and Huber Management Council.

Before becoming the President of HEM, Krawczyk served as Huber's Executive Vice President (EVP) of Strategy & Corporate Development since 2013. He brings more than 20 years of experience in industrial and consumer products, including expertise in financial management, strategy, corporate development, marketing and operations to his new leadership role. A native of the Detroit area, Krawczyk earned an MBA as well as an MS and BS in Electrical Engineering from the University of Michigan.

Before joining Huber, Krawczyk was EVP and Chief Financial Officer of Gibson Guitar Corporation. He also was Global Vice President of Business Development and Strategic Marketing for Belden and has held financial and operational leadership roles at DTE Energy, Delphi Automotive and Ford Motor Company.

Looking ahead, Krawczyk plans to lead HEM into a new era of growth and change in order to successfully position the company for future generations of shareholders and employees.

"Building on a strong track record of focused market leadership, superior customer service and operational excellence, HEM has a unique opportunity today to leverage its manufacturing and



applications expertise in order to pursue growth in its core businesses and expand across a range of premium functional ingredient business segments," Krawczyk said. "We look forward to creating long-term sustainable value for all the HEM stakeholders."

Krawczyk's leadership was instrumental in Huber's largest acquisition in over 10 years, the 2016 purchase of the Martinswerk business from Albemarle Corporation to become part of HEM's already successful Fire Retardant Additives (FRA) business unit and create a global leading non-halogen flame retardants business. This move marked the latest in a series of investments in the FRA business, including the acquisition of the Kemgard® smoke suppressant product line from Sherwin-Williams in 2010 and the purchase of the Almatix specialty hydrates business in 2012. In addition, Krawczyk led Huber's \$630 million sale of HEM's Silica business unit to Evonik Industries AG in 2017.

Huber Engineered Materials, headquartered in Atlanta, Georgia (US), is a global business focused on engineered specialty ingredients that enhance the performance, appeal and processing of a broad range of products used in industrial and consumer-based applications. www.hubermaterials.com

INDUSTRY NEWS - Material Developments



IDI's materials engineers have expanded their line of Structural Thermoset Composites (STC®) with the introduction of Fortium™, a high glass based composite material and Ultrium™, a carbon fiber based composite material.

Fortium™ and Ultrium™

While the conversion from metal to thermosets is nothing new, **IDI Composites International** has recently introduced Fortium™ and Ultrium™ STC® (Structural Thermoset Composites) as a high performance composite solution that is distinguished from standard SMC and BMC by the use of more specialized resins combined with higher levels of reinforcement (glass, carbon, aramid, etc.). The resulting fiber reinforced composite materials improve design, manufacture and durability of a broad range of products.

Fortium™ and Ultrium™ possess exceptional specific stiffness and specific strength, providing greater design flexibility at a lower price than an advanced composite - and at a far lower density than metal. They will outperform both metals and thermoplastics by offering higher strength per unit weight, better dimensional stability, superior corrosion resistance and greater design flexibility for complex geometries. Both Fortium™ and Ultrium™ STC® can be custom formulated for a specific application's requirements. Additional benefits to these advanced materials are outstanding

melt), impact resistance, superior moldability, high stiffness / weight ratio, carbon pre-preg compatibility. IDI Composites offers online webinars for many of their newly developed thermoset composites. For further information, visit ididcomposites.com

Styrene-Free SMC LYTEX™ SF

A. Schulman Inc. recently launched its LYTEXTM SF series, styrene-free sheet molding compounds (SMCs). an epoxy-based material presenting low out gassing, reduced volatile organic compound (VOC) emissions and low odor. this next generation compound is simple to process, providing the ability to lower overall system costs. Other key characteristics include premium surface appearance to maintain a high-end look and feel. The material also features outstanding mechanical and thermal properties for some of the most demanding applications. In addition, the material addresses future regulations for VOC emissions. For further information on A. Schulman's product offerings, visit their [website](#).

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HUBER | MARTINSWERK IMPLEMENTS PRICE INCREASE FOR MARTOXID® ALUMINUM OXIDES

Huber | Martinswerk, part of the Huber Engineered Materials division of J.M. Huber Corporation (Huber), recently announced a global price increase of up to 15 percent depending on product grade and form for its Martoxid® aluminum oxides effective Nov. 15, 2017 or as current contracts allow.

Alumina markets are seeing increasing costs as global supply and demand shifts due in part to refinery closures in China. The closures are being implemented to reduce the environmental impact of heavy industry in populated areas. As a result, both smelter grade alumina (SGA) and chemical grade alumina hydrate prices have increased significantly. Other key drivers for this price increase include higher energy and freight (ocean) costs.

Huber | Martinswerk produces Compalox® specialty oxides, Martoxid® aluminum oxides and Pergopak® organic carriers and matting agents and is a global leader in the production of fine precipitated alumina trihydrates and magnesium hydroxides, both non-halogenated fire retardants. Its Fire Retardant Additive (FRA) business has four manufacturing sites in North America and two in Europe.

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Mar-Bal Fact:

THE LEADING INTEGRATED COMPOUNDER AND MOLDER OF BMC THERMOSET COMPOSITES

Mar-Bal, The One-Source Solutions provider of BMC Thermoset Composites, continues to research and formulate advanced materials, develop innovative products and has a portfolio of brands and proprietary products delivering composite solutions and enabling our customer's technology and success. Mar-Bal serves the appliance, electrical, industrial, food service and transportation industries from their four facilities in North America and their Asia sales office located in Shanghai, China.



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