

Ashland researchers to present on new Pliogrip[™] adhesive and the future of UPR curing a the 2012 JEC trade show

BARCELONA, Spain – The success of today's composites manufacturers is largely driven by innovation in structural design as well as continuous advancements with the environmental, health and safety aspects of manufacturing, handling and use of composite materials.

At the <u>JEC trade show</u> to be held in Paris March 27-29, Ashland Performance Materials researchers will present technical papers highlighting innovations in structural adhesive chemistry and key insights into the future use of cobalt in room-temperature curing of unsaturated polyester resins (UPR). Both papers will be featured during the Technical Sales Presentations program to be held in the Agora Area (X 18).

On Wednesday, March 28, from 12 to 12:30 p.m., Michael J. Barker, research fellow, Ashland Performance Materials, will introduce a new Pliogrip[™] structural adhesive address the changing market requirements for manufacturing lightweight vehicles.

"Bond joints that include mixtures of sheet molding compounds, carbon fiber reinforced plastics, thermoplastics, or aluminum often have differential thermal expansion between the bonded substrates," explained Barker. "These mixed-material bond joints require adhesives with higher elongation and lower modulus that stay flexible in all temperatures that a vehicle can experience on the road in order to properly manage relative motion in the joint."

Ashland's Pliogrip adhesives have been used for composite bonding in automotive and <u>heavy truck</u> applications for more than 40 years. Pliogrip adhesives enable original equipment manufacturers (OEMs) to use composite materials in their high performance vehicles to reduce weight. As lightweight materials are getting more important for OEMs in their effort to reduce fuel consumption of their models, they are faced with new challenges to structurally bond dissimilar materials in bond joints.

On Tuesday, March 27, from 12 to 12:30 p.m., Dr. Timothy Pepper, director of technology, Ashland Performance Materials, will present on regulatory concerns around the use and handling of cobalt in room-temperature curing of UPR.

"As global regulations of chemicals become more cohesive, the manner in which many chemicals are handled is being scrutinized to scope the potential to harmonize these processes on a global level," explained Pepper. "In this frame, the European Chemical Agency, as part of the <u>REACH regulation</u>, is reviewing, among others, the handling of cobalt carboxylates. Cobalt is commonly used in low concentrations to catalyze a room-temperature cure in unsaturated polyester resins. Based on the testing of inorganic cobalt +2 salts, cobalt is under review and may change classifications, which would require more stringent labeling. It's paramount that customers, and the industry in general, understand the potential implications and alternatives for the future."

An Ashland representative will be available during the JEC Show at the UMECO booth, T50.

Ashland Performance Materials is the global leader in unsaturated polyester resins and vinyl ester resins. In addition, it provides customers with leading technologies in gelcoats, pressure-sensitive and structural adhesives, coatings and elastomers.

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