Axalta Coating Systems Provides a Glimpse into the Future of Coatings for Lightweight Automotive Design

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BONN, Germany--(BUSINESS WIRE)-- At the 23rd annual German Research Organisation for Surface Treatment (DFO – Deutsche Forschungsgesellschaft für Oberflächenbehandlung) European Automotive Coating Conference held in Bonn, Germany, in May 2016, Sven Radek, Group Leader for Process and Application for Axalta Coating Systems (NYSE: AXTA) in its Europe, Middle East and Africa (EMEA) region, examined the challenges and opportunities that lightweight automotive design brings to coatings systems used by car manufacturers (OEMs).

This Smart News Release features multimedia. View the full release here: http://www.businesswire.com/news/home/20160531006283/en/

Sven Radek, Group Leader for Process and Application for Axalta Coating Systems in its Europe, Middle East and Africa (EMEA) region. (Photo: Axalta)

“Lightweight vehicle construction is definitely driving innovation in low-bake coatings,” Radek said.

“Over the next 15 years, automotive manufacturers will be replacing standard steel with high-performance steel, aluminum, plastics and composites. They will also be cutting weight from safety, communication and electrical components in an effort to make vehicles lighter to reduce emissions and fuel consumption. These changes will have a significant impact on coating systems, as many of the new, lighter materials cannot withstand high-bake temperatures.”

Radek referenced the research that Axalta, a leading global manufacturer of liquid and powder coatings, is conducting on new technologies that hold the promise of integrating existing low-temperature paint system solutions. To date, no comprehensive, integrated solution exists that suits all application situations.

Radek explained, “Axalta is benefiting from its 150 years of experience in coatings, in particular the technological insight from our refinish paints. We can then work to transfer this knowledge into workable and successful solutions for the OEM market.”
Axalta already has low-bake systems that cure faster and at lower oven temperatures than traditional systems to help car manufacturers reduce energy costs and enable them to use new materials. The company also has an active development program for low-temperature topcoats and electrodeposition coats, as well as for two coat (2K) fillers, 2K PUR waterborn basecoats and 2K clearcoats that can cure at 80°C. With sustainability and productivity at their core, many of Axalta’s new systems share the ability to reduce the number of bake steps while aiming to deliver the same full layer performance as traditional coating processes.

Radek explained the existing low-temperature paint systems available for plastic automotive parts, for trucks and buses, as well as for specialized colors for customised OEMs that cure between 80°C and 125°C. He also examined the benefits and disadvantages of different technologies that allow curing at lower temperatures ranging from 70°C to 120°C.

Finally, Radek presented possible process options for the future. One scenario that is becoming popular again is UV drying on the paint line. Axalta’s UV Monocure System, one of the company’s Harmonized Coating Technologies™, replaces drying ovens with UV curing. This can reduce the drying zone footprint by as much as 70%. He also discussed how new robotic application will open up the possibility of reaching so-called shadow zones – those that are very hard to reach during the coating process.

Radek concluded, “The next decisive step is the integration of individual low-temperature solutions – materials, processes, application methods – and their transfer to pilot production. At Axalta, we take our role as a strong partner to the automotive OEMs very seriously. Our aim is to support them in achieving improved productivity, lower VOC emissions, reduced energy consumption, and lower facility investment and operation costs.”

The DFO European Automotive Coating Conference is attended by professionals from the automotive manufacturing and paint industries and aims to explore coating developments.

For more information on Axalta worldwide, please visit www.axaltacoatingsystems.com

About Axalta Coating Systems – Celebrating 150 Years in the Coatings Industry

Axalta is a leading global company focused solely on coatings and providing customers with innovative, colorful, beautiful and sustainable solutions. From light OEM vehicles, commercial vehicles and refinish applications to electric motors, buildings and pipelines, our coatings are designed to prevent corrosion, increase productivity and enable the materials we coat to last longer. With 150 years of experience in the coatings industry, the 12,800 people of Axalta continue to find ways to better serve our more than 100,000 customers in 130 countries every day with the finest coatings, application systems and technology. For more information visit axaltacoatingsystems.com and follow us on Twitter @axalta and on LinkedIn.