

News Release

Celanese Corporation
222 West Las Colinas Blvd.
Suite 900N
Irving, Texas 75039

Celanese XAP[®] Technology Helps Automakers Achieve Low-Emission Standards for Vehicle Interior Applications

DALLAS, FRANKFURT and SHANGHAI (May 7, 2014) – Celanese Corporation (NYSE: CE), a global technology and specialty materials company, today announced that its proprietary XAP[®] low-emission technology for Hostaform[®] acetal copolymer (POM) is helping automakers achieve their global engineering emission standards for molded parts located in a vehicle's interior.

“Driven by international legislation, air quality in automobiles is receiving renewed focus. Celanese is helping to set the global standard for low-emission engineered materials with its [Hostaform[®]](#) XAP[®] and XAP^{2™} POM grades that help the auto industry reduce part emissions in vehicles,” said Scott Klingler, Celanese global original equipment manufacturer (OEM) manager.

Hostaform is an ideal engineered material for automotive interiors, which has led one of the world's largest automakers to identify Celanese's Hostaform as the preferred material in a specification standard for POM. Hostaform UV270Z XAP² meets OEM performance requirements for automotive cockpit applications with a combination of:

- high flow;
- UV stability;
- colorability;
- scratch resistance;
- impact strength.

One automotive interior application for the use of this Celanese engineered material is speaker grills. Hostaform UV270Z XAP² can be injection molded in one shot, and then snap-fitted or ultrasonically inserted in the support element. One recent set of front and rear door speaker grills posed specific challenges since they required a perfect fusion of function and form to ensure excellent sound transmission, as well as aesthetics.

“This grill pattern design, with its small and thin pattern and small and tight holes, pushed the material and processing envelope,” said Craig Dlugos, Celanese application development engineer. “The engineered material needed a high-flow characteristic because the small design created significant sheer and molding issues.”

Another challenge involved color matching. The Celanese color technology team needed to adapt the formulation to match interior colors without losing any of the low-emission properties. Formulating a color-matched material to meet the OEM color approval process required numerous formulation iterations and molding trials,” said Bruce Mulholland, Celanese global color technology manager. “The hole pattern in these particular speaker grills significantly changed the appearance of these colors in the actual part.”

Colorants were specifically selected to match each color. All colors were approved with the first submission in plaque form to the design studio. The challenge came in translating a solid molded plaque to a speaker grill with hundreds of holes on the appearance surface. Offsets to the official

master were developed in the laboratory and trialed in the actual part until part appearance approval was achieved.

“Part placement in the vehicle was also challenging for these colors,” added Mulholland. “Color harmony in the vehicle had to be achieved between solid plastic trim, soft leather trim and these speaker grilles with holes and curvature.”

Additional automobile applications

The latest XAP² technology of low-emission Hostaform POM products from Celanese is an excellent material for parts in the passenger compartment of the vehicle. Components such as door modules or seatbelt pre-tensioning systems increasingly call for low-emission materials. Other potential applications include head rests and lumbar support, fastening solutions in the door area and trim for door elements, instrument panels and center consoles.

“Celanese is a leading supplier of low-emission engineered materials thanks to Hostaform POM with its [XAP technology](#),” said Stefan Kutta, Celanese global director, Transportation. “We are supporting this global trend for more stringent requirements in China, Europe and the Americas with the largest low-emission product offering available today.”

About Celanese

Celanese Corporation is a global technology leader in the production of differentiated chemistry solutions and specialty materials used in most major industries and consumer applications. With sales almost equally divided between North America, Europe and Asia, the company uses the full breadth of its global chemistry, technology and business expertise to create value for customers and the corporation. Celanese partners with customers to solve their most critical needs while making a positive impact on its communities and the world. Based in Dallas, Texas, Celanese employs approximately 7,400 employees worldwide and had 2013 net sales of \$6.5 billion. For more information about Celanese Corporation and its product offerings, visit www.celanese.com or our blog at www.celaneseblog.com.

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Celanese Business Contacts:

Engineered Materials:	Media Relations Americas	Media Relations Europe (Germany)	Media Relations Asia (Shanghai)
	Stephen Cushard	Henning Küell	Amber Zhao
	+1-859-372-3164	+49-69-45009-1797	+86-21-3861-9222
	Stephen.Cushard@celanese.com	Henning.Kuell@celanese.com	Tong.Zhao@celanese.com



Low-Emission POM for Automotive Interiors — Hostaform® UV270Z XAP² from Celanese, which meets performance and color requirements for automotive cockpit applications, is used in injection molded speaker grills.