AUTOMOTIVE PLASTICS NEWS
A PUBLICATION OF THE AUTOMOTIVE DIVISION OF THE SOCIETY OF PLASTICS ENGINEERS

December 2009 - Volume 39, Issue 2

Innovation Award Gala 2009

The Automotive Division of the Society of Plastics Engineers (SPE®) International announced the category and Grand Award winners at its 39th-annual Automotive Innovation Awards Competition, the oldest and largest recognition event in the automotive and plastics industries. Trophies were given to category finalists and winners, as well as the Grand Award, Hall of Fame, and Vehicle Engineering Team Award winners on November 12, during the Automotive Innovation Awards Gala, which was held at Burton Manor in the suburbs of Detroit.

"The theme of this year's competition was 'Green Cars, Blue Skies,' in recognition of the auto industry's intense focus on increasing fuel efficiency while lowering cost of ownership and tailpipe emissions," explains Maria Ciliberti of Ticona Engineering Polymers, who was also the 2008 and 2009 Automotive Innovation Awards program chair. "Polymers play an important role in meeting those goals. Plastic materials are practical, proven, safe, and economical options that provide automakers with lightweighting opportunities while maintaining style, comfort, and safety."

"Then there are the added benefits to consumers of lower operating costs (thanks to lighter vehicles with better mileage), plus the planet is protected by lowering the industry's carbon footprint" continued Ciliberti. "With all the innovation showcased this year, it's clear that engineers and carmakers from around the world have come to understand that not only is it possible with plastics but also that plastics make it possible."

Accepting the Grand Award Trophy from SPE Innovation Awards Program Chair Maria Ciliberti is Elias T. Boueri, General Motors Engineering Group Manager.

The prestigious ***Grand Award Winner***, and the Process / Assembly / Enabling Technologies category winner, was the Automotive Plastic-Case Radio with Insert-molded EMC Shielding, which was launched on the General Motors 2009.5MY Chevrolet® Tahoe.

Other winning nominations in this year's competition were as follows:

Continued Page 8

Treasurer's Report

Yvonne Bankowski

The SPE Automotive Division bank account balance is in good standing with $89K in checking and $27K in savings for a total of $116K. The financial results for the SPE Automotive Golf Outing are income, $11.2K, expenses, $8.7K, net proceeds, $2.5K. The 2009 ACCE report is still being finalized.

The 2009 SPE Automotive Innovation Awards Gala was a huge success with excellent attendance and sponsorship.

The 2008/2009 tax form was filed with the IRS and the annual report was sent to SPE National in early November. A summary of the taxes are $438K revenue, $430K expenses, excess $8K and net assets $129K.

Automotive Division Meeting Schedule and Special-Events Calendar

Automotive Division BOD meeting American Chemistry Council-Troy	February 1, 2010 5:00 pm
AutoEPCON Best Western Sterling Inn Sterling Heights, MI	April 20, 2010 All day event
ANTEC 2010 Orlando World Center Marriott Resort & Convention Center Orlando, Florida USA	May 16-20, 2010
Division Planning Meeting Location TBD	June 2010
10th-Annual SPE Automotive Composites Conference & Exposition, MSU Management Education Center, Troy, MI	September 2010
40th-Annual SPE Automotive Innovation Awards Program & Gala Burton Manor, Livonia, MI	November 2010

Automotive Division Board of Directors meetings are open to all SPE members, and are usually held at the **American Chemistry Council (ACC)** in Troy, MI.
Call Maria Ciliberti at (248) 337-6851 for more information.

Social Chair Report

Bill Pippine

SPE Automotive section hosted three Networking/Social events in 2009 and have created a monthly plan to host more events in 2010. The events will be held on the last Thursday of the month with the event information available on the SPE Automotive website. The next event will be a Wine Tasting at Vintners Cellars of Royal Oak on January 28.

If you have an idea for an event or questions about a future event, please contact Bill Pippine at **social-chair@speautomotive.com**. Please come and meet fellow professional colleagues from SPE and potential new SPE members. We look forward to seeing you at our next event.

www.speautomotive.com

Education Report

Monica Prokopyshen & Peggy Malnati

For the third consecutive year, the Society of Plastics Engineers - Automotive & Composite Divisions have jointly awarded two $2000 scholarships for graduate research in automotive composites. This year's recipients are **Gregorio Manuel Vélez-García**, a Ph.D. candidate at Virginia Polytechnic Institute and State University and **Zeba Farheen Abdul Samad**, a doctoral candidate at the University of Illinois-Urbana/Champaign. Each will present research results at the tenth annual SPE ACCE (Automotive Composites Conference & Exhibition) in September 2010.

Scholarships

Gregorio Manuel Vélez-García, from Vieques, Puerto Rico is developing a new method for predicting fiber orientation in fiber-reinforced, injection-molded thermoplastics. His education background includes B.S. and M.S. degrees in Chemical Engineering from the University of Puerto Rico-Mayaguez, a National Science Foundation (NSF) fellowship and research programs sponsored by the NSF, National Institutes of Health (NIH), National Aeronautics & Space Administration (NASA) and Department of Energy (DOE). Vélez-Garcia's scholarship work will focus on improving predictive models for fiber orientation in reinforced injection-molded thermoplastics so they more closely match experimental results.

Zeba Farheen Abdul Samad completed her undergraduate degree in Polymer Engineering and Technology at the Institute of Chemical Technology, Mumbai, India. Abdul Samad was awarded the Perkin-Elmer Award from the Composites Division of SPE (2007-2008) and was the recipient of the Bostik Award at SPE's Annual Technical Conference (ANTEC) in 2009. Abdul Samad's primary research interest is designing polymeric materials for high-temperature applications, specifically for composite matrix materials. She is currently working on novel aromatic thermosetting copolyester matrix systems for high temperature stable composite applications as well as on silver-based bactericidal systems for enhancing shelf-life of milk in tropical temperatures. Abdul Samad will use her scholarship to continue her work on aromatic thermosetting copolyester (ATCP) / carbon fiber composites, a promising new family of materials that show liquid crystalline structures during melt and post-cure.

Student Poster Competition

The student poster contest, cosponsored by Dow, which debuted at the ACCE, had eleven submissions from 5 different schools: University of Michigan-Dearborn, Tuskegee University-Center for Advanced Materials, University of Alabama at Birmingham-Materials Applications Research Center, North Dakota State University, and the University of Mississippi-Oxford.

North Dakota State University

- Shanshan Huo, Michael A. Fuqua, and Chad A. Ulven, Development of Flax Fiber/Soy-Based Polyurethane Composites for Mass Transit Flooring Application
- Michael A. Fuqua, Shanshan Huo, Venkata S. Chevali, and Chad A. Ulven, Utilization of Agricultural By-Products as Reinforcements in ABS

Tuskegee University

- Tiffany Nelson Williams, Development of Bio-Based, Hazardous Air Pollutant Free Sheet Molding Compounds
- Gregory Strawder, Mahesh Hosur, Shaik Jeelani, Thermal and Mechanical Studies of Wood Flour Reinforced Polyurethane Composites

University of Alabama

- K. Balaji Thattai and Ameya V., Squeeze Flow Rheology of Long Fiber Thermoplastics.
- Lina Herrera Estrada, Msianda Mfala, S.Pillay and U.K. Vaidya, Fiber Treatment and Interface Characterization of Banana Fiber Composites for Automotive Applications

University of Michigan-Dearborn

- Sahuraj Mane, Crush Behavior of Thin Composite Plates
- Brandon Fell and P.K. Mallick, Development of Elliptic Composite Springs for Automotive Suspension
- Uday Sharma and German Reyes, Full Field Analysis of Woven Glass Fiber Reinforced Thermoplastic Composites under Varying Strain Rates.
- Shiva Shankaran and P.K. Mallick, Fatigue Characterization of Injection Molded Short Fiber Reinforced Thermoplastics

University of Mississippi-Oxford

- Swasti Gupta and Raju Mantena, Shock Response and Finite Element Modeling of Nanoclay and Graphite Platelet Reinforced Vinyl ester Nanocomposites

Student Poster Competition

Student speakers who, photographed with their posters are (clockwise from upper left): Shanshan Huo, Uday Sharma, Michael A. Fuqua, Swasti Gupta, K. Balaji Thattai, Brandon Fell, Shiva Shankaran and Shardul Bhambura.

Visit the SPE International Website for up-to-date information on training, seminars, and other career enhancing information.

www.4spe.org

At the 2009 SPE Innovation Awards Gala Maria Ciliberti, current Automotive Division Chair, presented the Past-Chair Award to Tom Picket, Automotive Division Chair 2008-09.

Innovation Awards Program

Continued from Page 1

Body Exterior Category Winner
Exterior Spoiler with Integrated CHMSL Assembly on the General Motors 2009MY Cadillac® CTS® Sport

Body Interior Category Winner
Plastic Post-Isolation for HVAC Blower Motors on the General Motors 2010MY Chevrolet® Camaro® Sports Car

Chassis & Hardware Category Winner
Electric Power-Steering Flexible Coupling on the Fiat S.p.A. 2010MY Fiat® 500 Compact Car

Environmental Category Winner
Radiator End Tank from Renewably Sourced Material on the Toyota Motor 2010 Toyota® Camry® Sedan

Materials Category Winner
Door Panel from Natural-Fiber Pre-Preg Composite on the 2008MY BMW® 7 Series Luxury Sedan

Performance & Customization Category Winner
Illuminated Door-Sill Insert on the 2010MY Ford® Mustang® Sports Car, and Lincoln® MKZ & MKT Sedans

Powertrain Category Winner
Oil Pan Optimized for Stone Impact on the Ford Motor Co. 2010MY 6.7L Power-Stroke Turbo Diesel

Safety Category Winner
Pedestrian-Protection-Compliant Front Fender on the 2008MY Ford® Kuga® Compact CUV

2009 Hall of Fame Inductee
First Thermoplastic Body Panels launched on the General Motors 1987MY Buick® LeSabre® T-Type Sports Coupe

Ford Motor Co. was honored with the ***Vehicle Engineering Team Award*** (VETA) for numerous plastics innovations on the 2010MY Ford® Taurus® sedan. And Irvin E. (Irv) Poston, who had a long and distinguished career at then General Motors Corp. where he was responsible for numerous automotive plastics "firsts," received SPE's ***Lifetime Achievement Award***.

Additional details on all these category winners can be found throughout this newsletter.

The mission of SPE International is to promote scientific and engineering knowledge relating to plastics worldwide and to educate industry, academia, and the public about these advances. SPE's Automotive Division is active in educating, promoting, recognizing, and communicating technical accomplishments for all phases of plastics and plastic based-composite developments in the global transportation industry. Topic areas include applications, materials, processing, equipment, tooling, design, and development.

For more information about the Automotive Innovation Awards Competition and Gala or to find additional details about the 2009 winners, please visit the SPE Automotive Division's website at **www.speautomotive.com/inno**

Maria Ciliberti, 2009 SPE Automotive Division and Awards Program Chair, with 2009 SPE International President Dr. Paul Anderson and the venerable Conrad Zumhagen of The Zumhagen Co. LLC.

Design and Development with

Automotive Engineering Plastics

AUTO EPCON

One Day Technical Conference & Exhibition

Date of Conference: Tuesday April 27, 2010

MSU Management Education Center, Troy, MI

Call for Technical Presentations

Deadline for Abstracts
February 26, 2010

Deadline for Presentations
April 9, 2010

No Paper Required

Contact Information:

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Program Scope: The **Automotive Division** and **Detroit Section** of the Society of Plastics Engineers (SPE®) International invite you to attend a 1-day technical conference & exhibition showcasing innovative developments in the Design, Materials, Processing, & Use of Engineering Plastics for the Global Automotive Industry.

Who Should Attend: This conference is specifically designed to inform, update and educate the OEM & supplier communities about advances in both thermoset & thermoplastic engineering polymers. Learn how these widely-used materials can help improve performance & productivity, while reducing cost and mass.

Presentations: Hear Technical Presentations on the Newest Advances in Engineering Materials related to:

> Design Engineering
> Materials Development
> Processing & Enabling Technologies
> New Applications & More

Exhibits: See Exhibits from Engineering Plastics Suppliers, Molders, Compounders, Additives & Reinforcement Suppliers, Design & Engineering Firms, & Machinery Suppliers. Experts will show you how to apply the latest technologies to your next program.

Conference Includes:

Full Day of Technical Presentations, Plenary & Keynote Presentations on Automotive Business Trends, Lunch & Coffee Breaks, and Exhibits of Advanced Technologies.

2009 SPE Automotive Division Grand Award Winner

"Most Innovative Use of Plastics"

Plastic-Case Radio with Insert Molded EMC Shielding

on the 2009.5MY Chevrolet® Tahoe / GMT900 Family Vehicles

The Grand Award Winning Team

Process / Assembly / Enabling Technologies Category Winner and Grand Award Winner

Plastic-Case Radio with Insert Molded EMC Shielding

OEM:	General Motors Co.
Make/Model:	2009.5MY Chevrolet® Tahoe / GMT900 Family
Tier Supplier:	Delphi E&S
Processor:	Delphi E&S
Material Supplier:	MRC
Material:	16%-glass-reinforced PC/ABS

This application features an innovative, patented method of embedding EMC shielding into an environmentally friendly plastic case, enabling significant reduction in weight and assembly time. A metallic-mesh Faraday cage is insert molded into the reprocessed 16% glass-reinforced PC/ABS material. The design also enables the use of slide lock & snap lock design features that speed assembly while, eliminating the previous sheet-metal case and 29 screws. The resulting unit provides significant weight reduction, assembly cost & time savings, with improved physical and EMC shielding and a more sustainable product.

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AUTOMOTIVE SPE INNOVATION AWARDS COMPETITION & GALA

HONORING THE BEST IN AUTOMOTIVE PLASTICS

Despite the difficult times in the industry, over 600 people attended the 2009 Gala. Representatives from the major OEMs, Suppliers, and Media were on hand to honor the latest innovations in automotive plastics.

"Most Innovative Use of Plastics" Trophy

2009 Innovation Awards Competition Category Winners

Body Exterior Category Winner

Exterior Spoiler with Integrated CHMSL Assembly

OEM:	General Motors Co.
Make/Model:	2009MY Cadillac® CTS® Sport Wagon
Tier Supplier:	ABC Group
Processor:	ABC Group
Material Supplier:	SABIC Innovative Plastics
Material:	PC/ABS

Highly dimensionally stable, this thermoplastic Class A horizontal body panel meets stringent gap requirements by managing a low coefficient of thermal expansion (3.9) while also maintaining heat, impact, and surface quality for a highly aesthetic application. The center-high-mounted stop light (CHMSL) is also integrated in this first-surface part.

Body Interior Category Winner

Plastic Post-Isolation for HVAC Blower Motors

OEM:	General Motors Co.
Make/Model:	2010MY Chevrolet® Camaro® Sports Car
Tier Supplier:	Delphi Corp.
Processor:	Delphi Corp.
Material Supplier:	Spartech Polycom
Material:	20%-talc-filled PP

This application uses an integrally molded plastic mount instead of multiple rubber isolators to soften and quiet HVAC fan-motor vibrations, resulting in significant reductions in cost and development time plus a quieter vehicle interior for consumers. A resonant frequency "tuning" feature allowed for noise/vibration/harshness (NVH) optimization even late in the vehicle-development cycle with minimum impact on mold tooling. Now bare motors can be purchased, allowing more motors to be shipped per container, and a quick snap-fit joins the plastic mount to motor, facilitating assembly.

Charles Buehler, GM Technical Integration Engineer - Exteriors SPE Award Presenter, Tom Pickett

Sean Stelzer - GM Director North America Product Development and SPE Award Presenter, Yvonne Bankowski

2009 Innovation Awards Competition Category Winners

Chassis/Hardware Category Winner

Electric Power-Steering Flexible Coupling

OEM:	Fiat S.p.A.
Make/Model:	2010MY Fiat® 500 Compact Car
Tier Supplier:	Nexteer Automotive
Processor:	Forteq
Material Supplier:	DSM
Material:	50%-glass-reinforced PA 4/6

This flexible plastic coupling for the vehicle's electric power steering replaced a similar stainless-steel coupling with broached splines and grease. The part features ribs that connect and transfer torque from one rotating shaft to another, which in turn strokes axially and stretches and compresses the coupling. The fully compliant constant-velocity joint eliminates torsional lash, the need for grease, and all sliding interfaces at a cost savings, while reducing audible cabin noise and improving steering "feel." The system replaces traditional hydraulic systems, reducing weight 17%, cost 50%, and increasing fuel economy 4%.

Accepting the award from SPE Presenter Bonnie Bennyhoff (on behalf of Fiat) is Kevin Ross, Global Engineering Manager for Nexteer Automotive, and other Chassis/Hardware Category team.

Environmental Category Winner

Radiator End Tank from Renewably Sourced Material

OEM:	Toyota Motor Co.
Make/Model:	2010 Toyota® Camry® Sedan
Tier Supplier:	DENSO Corp.
Processor:	DENSO Corp.
Material Supplier:	DuPont Automotive
Material:	PA 6/10 (with monomer from caster bean oil)

This application uses an integrally molded plastic mount instead of multiple rubber isolators to soften and quiet HVAC fan-motor vibrations, resulting in significant reductions in cost and development time plus a quieter vehicle interior for consumers. A resonant frequency "tuning" feature allowed for noise/vibration/harshness (NVH) optimization even late in the vehicle-development cycle with minimum impact on mold tooling. Now bare motors can be purchased, allowing more motors to be shipped per container, and a quick snap-fit joins the plastic mount to motor, facilitating assembly.

Accepting the award (on behalf of Toyota Motor Company) from SPE Presenter Monica Prokopyshen is Masaki Shimizu General Manager, Materials Engineering Group, Denso Corp, and other Enviromental Category team members.

AUTOMOTIVE INNOVATION AWARDS COMPETITION & GALA
HONORING THE BEST IN AUTOMOTIVE PLASTICS

VIP Reception

The VIP cocktail reception (reserved for program sponsors and senior level automotive executives) was one of the absolute best networking opportunities in town, according to several supplier executives in attendance. This year's VIP reception featured a 2010 Ford Taurus and a string quartet, which created a very conducive environment for everyone to interact with program sponsors and VIPs.

2009 Innovation Awards Competition Category Winners

Materials Category Winner

Door Panel from Natural-Fiber Prepreg Composite

OEM:	BMW
Make/Model:	2008MY BMW® 7 Series Sedan
Tier Supplier:	Dräxlmaier Group
Processor:	Dräxlmaier Group
Material Suppliers:	BASF AG (resin) J. Dittrich & Söhne GmbH (fiber mat)
Material:	Acrylic Copolymer

This lower door-panel inner was compression molded from a new, high-performance, lightweight, cost-effective, and green composite. The resin matrix is a unique acrylic polymer that is thermoplastic in its "B-stage," allowing for production of prepreg/semi-finished rollstock, yet cross-linking at temperatures above 120C to produce a very durable thermoset. The resin's high wetout of natural fibers and ability to form chemical as well as mechanical bonds to the reinforcement allows for production of composites with very-high fiber loadings - 70% in this application. The resulting panel saves weight and cost, and significantly reduces VOC emissions.

Accepting the award (on behalf of BMW) from SPE Presenter Norm Kakarala is Ms. Astrid Hinrichs, Innovations Materials Manager of the Draexlmaier Automotive and Michael Kalbe.

Performance and Customization Category Winner

Illuminated Door-Sill Insert

OEM:	Ford Motor Co.
Make/Model:	2010MY Ford® Mustang® Sports Car, Lincoln® MKZ & MKT Sedans
Tier Supplier:	Innotec Group
Processor:	Innotec Group
Material Suppliers:	Altuglas, SABIC Innovative Plastics, Serigraph
Materials:	ABS, Polycarbonate, & Acrylic

Combining several different plastic technologies to create highly efficient optics that require only one LED light source, this illuminated door-sill insert can easily be customizable (via laser etching) to produce high-impact illuminated graphics. The system's unique construction allows the design to be adapted to new vehicles in weeks, significantly reducing development costs. In addition, the application is the auto industry's first to provide multi-color illumination from a single LED light engine.

Marcy Fisher, Ford Global Body Interior Engineering Director and SPE Award Presenter, Kevin Pageau

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2009 Innovation Awards Competition Category Winners

Powertrain Category Winner

Oil Pan Optimized for Stone Impact

OEM:	Ford Motor Co.
Make/Model:	2010MY 6.7L Power-Stroke Turbo Diesel
Tier Supplier:	Dana
Processor:	Dana
Material Supplier:	BASF
Material:	Impact-Modified, 35%-GR PA 6

This is the first plastic oil pan designed for full exposure to the road environment and optimized to withstand road chemicals and stone impacts. An impact-modified 35%-glass-reinforced nylon 6 provides excellent impact strength even at -40C and is not affected by calcium chloride. A special waffle-design ribbing pattern can handle multiple impacts. This oil pan also features the first plastic drain plug, which sports a cam-lock design that makes it impossible to over-torque and break the plug's screw threads. The oil pan is 2.1-lb lighter than the steel pan it replaced and 30% less costly.

Accepting the award from SPE Presenter Jeffery Helms is JonCarlo Mancini, Ford Product Engineer 6.7L Scorpion Lower End Components, and other Powertrain team members.

Safety Category Winner

Pedestrian-Protection-Compliant Front Fender

OEM:	Ford Motor Co.
Make/Model:	2008MY Ford® Kuga® Compact CUV
Tier Supplier:	Montaplast
Processor:	Montaplast
Material Supplier:	SABIC Innovative Plastics
Material:	MPPE/PA

This is the first SUV with thermoplastic fenders that meets tough European pedestrian-protection requirements for head impact in a single part, eliminating the need for secondary bracketry under the fender as in steel designs. The MPPE/PA material is online paintable, dent and corrosion resistant, a unique styling enabler, and reduces both weight and cost by 50% vs. steel. The vehicle was also able to qualify for a better insurance rating because of this innovation.

Accepting the award from SPE Presenter Jane Aselage is Bruno Barthelemy, Ford Body Structures Chief Engineer and other Safety team members.

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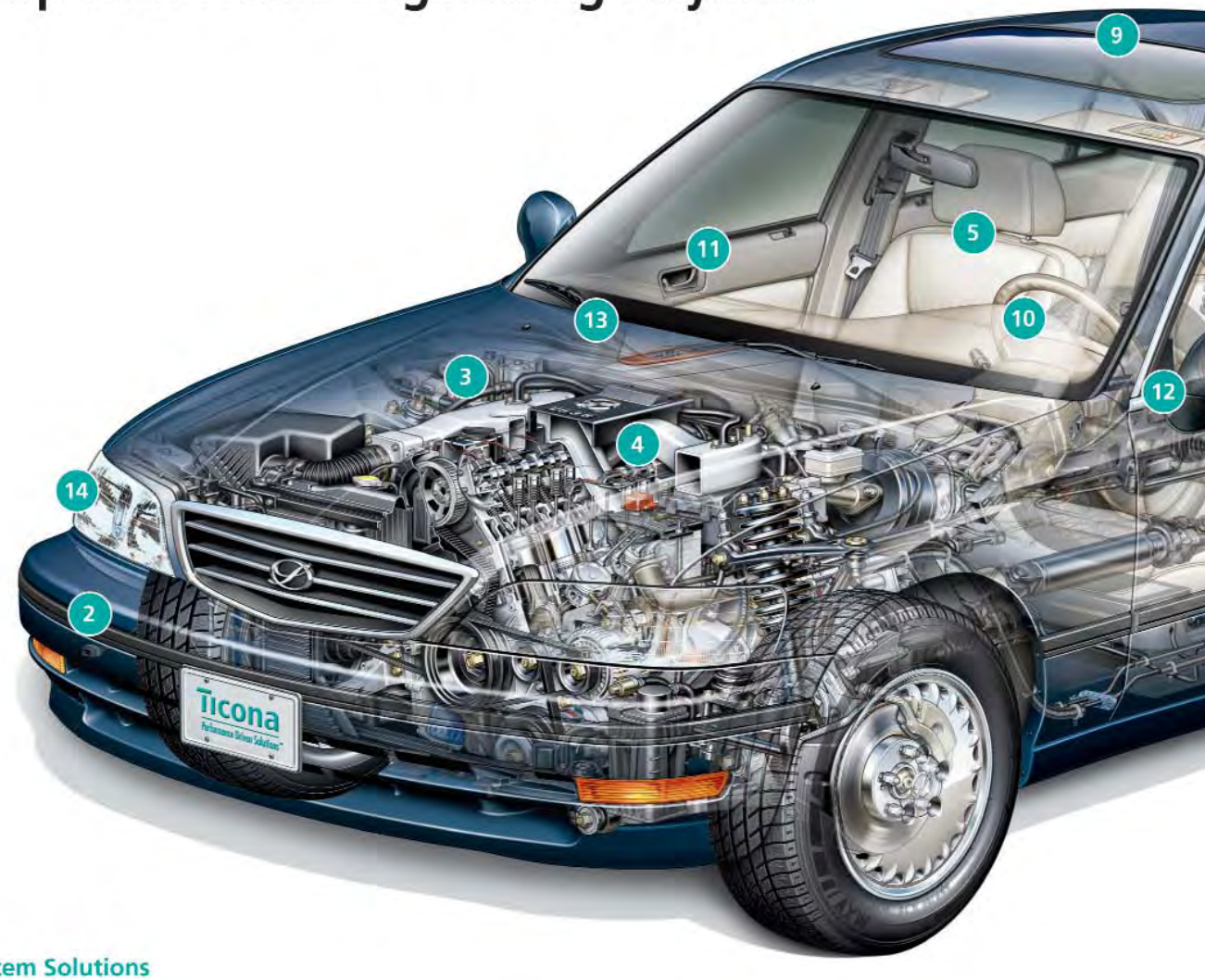

Integrated System Solutions

1 Door/Lock/Window
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2 Front End Modules
Celstran® LFRT, Celanex® PBT, Impet® PET

3 Electrical
Celanex® PBT, Fortron® PPS, Vectra® LCP, Hostaform®/Celcon® acetal copolymer

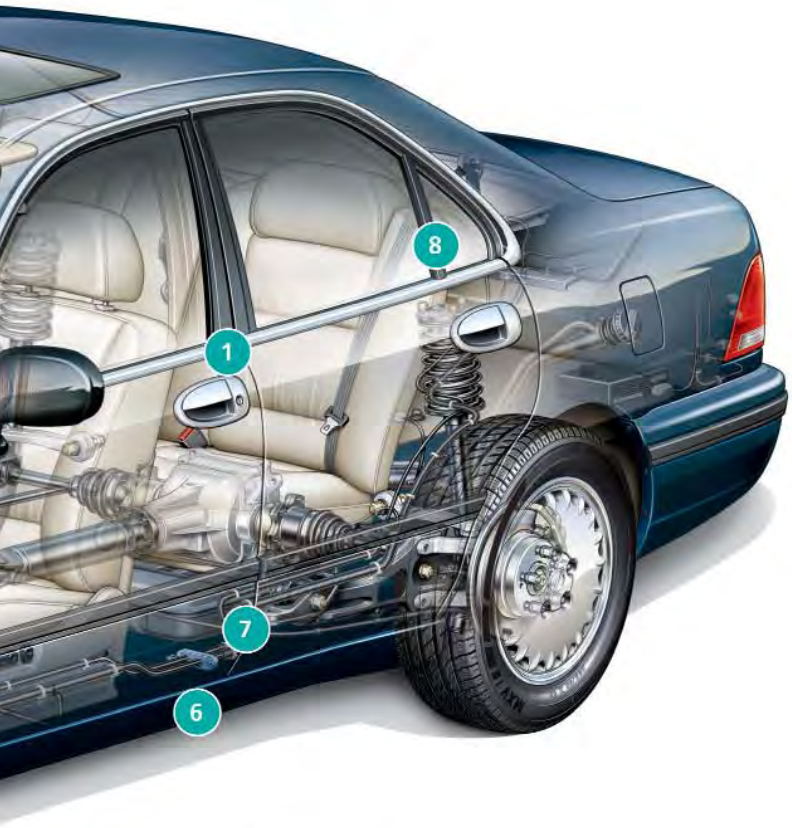
4 Power Distribution
Celstran® LFRT, Celanex® PBT, Vectra® LCP, Fortron® PPS

5 Cockpit Environment
Celanex® PBT, Vandar® PBT, Riteflex® TPC-ET, Hostaform®/Celcon® acetal copolymer

6 Underbody Skid Plates
Celanex® PBT, Celstran® LFRT

7 Advanced Fuel Delivery
Hostaform®/Celcon® acetal copolymer, Fortron® PPS, Celanex® PBT, Riteflex® TPC-ET

8 Seating & Restraint
Hostaform®/Celcon® acetal copolymer, Celstran® LFRT, Riteflex® TPC-ET, Celanex® PBT, Vandar® PBT



9 Multi-functional Roof
Hostaform®/Celcon® acetal copolymer, Celanex® PBT, Fortron® PPS, Celstran® LFRT

10 Instrument Panels
Celstran® LFRT

11 Speaker Grilles, Knobs, Handles and Levers
Hostaform®/Celcon® acetal copolymer, Celstran® LFRT, Celanex® PBT

12 Mirror Housings
Hostaform®/Celcon® acetal copolymer, Celanex® PBT, Celstran® LFRT

13 Wiper Plenums
Hostaform®/Celcon® acetal copolymer, Celanex® PBT, Celstran® LFRT

14 Lighting Housings
Celanex® PBT, Vectra® LCP, Fortron® PPS

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- Outstanding chemical resistance
- Good low temperature impact
- Wide temperature use range

Vandar® Thermoplastic Alloy
- Excellent chemical resistance, ductility and stiffness
- High impact strength at low temperatures

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- Superior thermal characteristics and dimensional stability
- High strength and modulus
- Broad chemical resistance
- Low mold shrinkage
- Excellent electrical properties
- Inherent flame resistance

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Part Display Reception

Another highlight of the event was a spectacular display of vehicles including the 2010 Ford Taurus (*Vehicle Engineering Team Award* vehicle), and numerous other vehicles from General Motors, Ford Motor Company, Chrysler LLC, and Hyundai. The vehicles were on display in the reception area with all 45 of the component and applications nominated for the 2009 Innovation Awards Program competition.

With over 400 people at the Display Reception, this was another great networking opportunity to meet with OEMs, Tier 1 suppliers, molders and material suppliers, and to review the latest innovations in automotive plastics.

2009 SPE Automotive Hall of Fame Inductee

The Automotive Division of the Society of Plastics Engineers (SPE®) International announced the Hall of Fame winner on November 12, 2009 at its 39th-annual Automotive Innovation Awards Competition, the oldest and largest recognition event in the automotive and plastics industries.

To be considered for the Hall of Fame Award, a part must have been in continuous service in some form for at least 15 years and preferably have been widely adapted within the automotive or ground-transportation industries. This year's winner meets these qualifications: it is the first use of an engineering thermoplastic on a vertical body panel - the front fenders on the 1987MY Buick® LeSabre® T-Type sports coupe produced by then General Motors Corp (GM) using Noryl GTX® 910 resin, an MPPE/PA copolymer supplied by then GE Plastics (now SABIC Innovative Plastics, Pittsfield, Mass.).

The automaker's success with this application was quickly translated into thermoplastic fenders on the 1987MY Buick Reatta® sports coupe, then other 1988-1995 C&H-platform vehicles, and in GM's 1989-2005 Saturn® passenger vehicles, all of whose exterior vertical body panels were thermoplastic. In fact, over 45 platforms and 20-million vehicles globally have used or currently use this material. Thermoplastic body panels have since been translated beyond automotive to tractors and lawnmowers for home and agricultural use.

A team at GE worked for more than 5 years to develop a polymer that would fulfill GM's requirements for a material that was high quality, lightweight, damage and corrosion resistant, and compatible with then current body-build practices and paint systems. GM's own engineering group reviewed, tested, and rejected 160 different materials from 17 resin suppliers before settling on the MPPE/PA grade. Noryl GTX resin had the thermal stability to endure online priming and painting, allowing them to be assembled to the body-in-white (BIW). Furthermore, the polymer alloy offered low-temperature impact strength, very-good thermal stability, broad chemical resistance, low mold shrinkage, low moisture absorption (vs. nylon alone), and good dimensional stability.

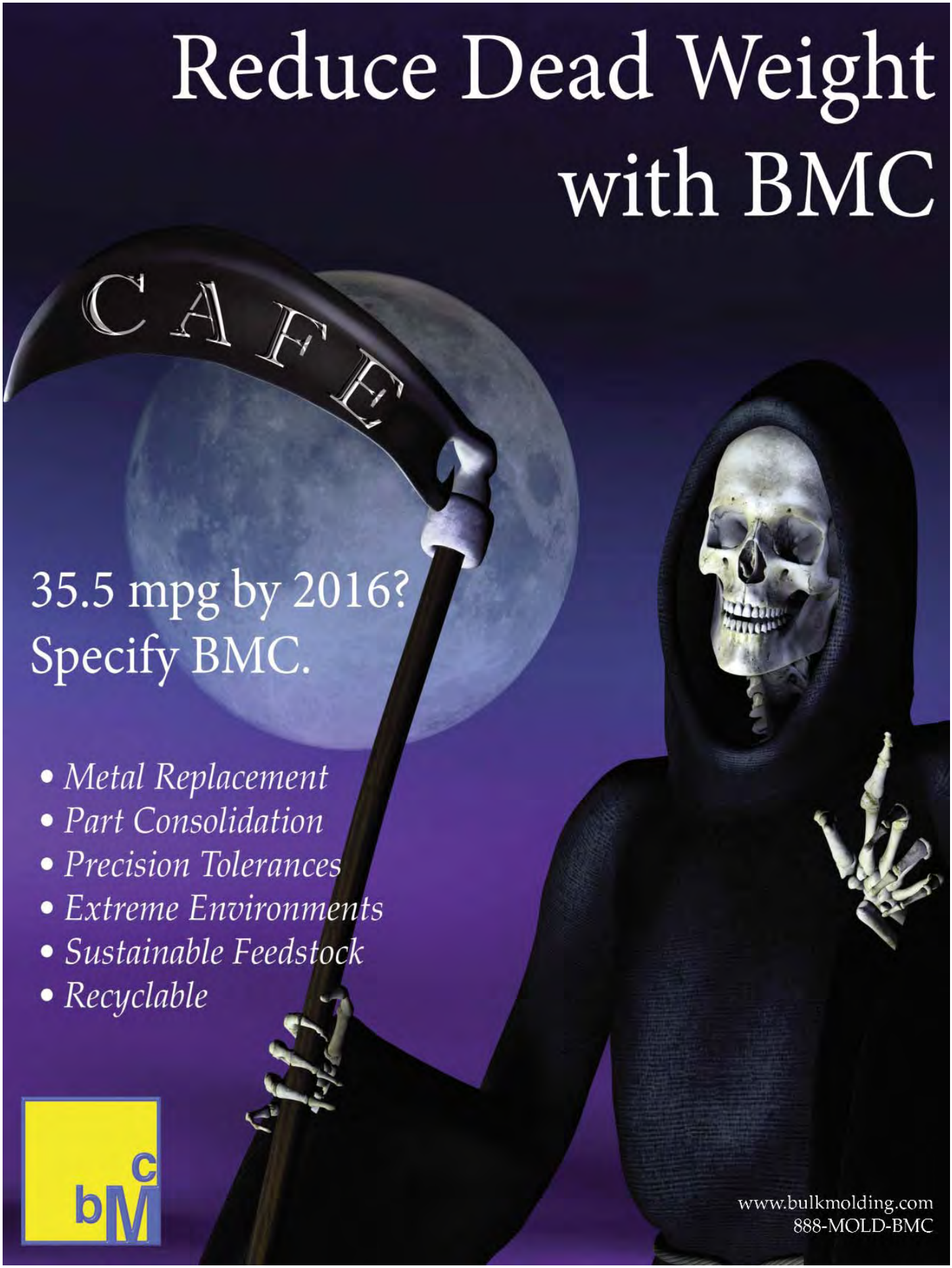
First Thermoplastic Body Panels

OEM:	General Motors Corp.
Make/Model:	1987MY Buick® LeSabre® T-Type Sports Coupe
Supplier/Processor:	Buick Factory 8
Material Supplier:	GE Plastics (now SABIC Innovative Plastics)
Material:	MPPE/PA

The injection-molded parts produced a Class A surface out of the tool, eliminating multiple secondary operations required with steel, SMC, or RIM prior to painting. Making the switch from steel to thermoplastic enabled GM to reduce part weight 40% (4 lb/1.8 kg vs. 7.3 lb/3.3 kg in steel) and eliminate denting and corrosion.

GM's Buick Factory 8 in Flint, Michigan molded the first fenders for the Buick LeSabre T-Type sports coupe and Delta Tooling (Auburn Hills, Michigan) produced the original injection molds for this program.

SPE Presenter Nippani Rao with the Hall of Fame team for the First Thermoplastic Body Panels.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Job Seach Advice for the Older Engineer

By Barry Boyce

Based on the six months it has taken me to find a contract supplier quality engineer position this year, I offer what I hope is job-search advice for the older engineer. During this time, I sent out 600 resume applications on Monster, participated in several job interviews where I finished "second," and I networking with everyone I knew from years in the automotive industry. Here's what I've concluded from that experience.

You need a resume of course. Decide on the job title you want, list your best accomplishments (money saved, programs launched), and then write a personal description on personality traits you think a potential employer might value (attention to detail, see big picture, etc.). Sadly, this lead paragraph is likely to be the only part of your resume that recruiters and personnel department people will read, so take time in preparing it. The rest of the resume does have to have the right key words and accomplishments, and needs to describe what you did at each job you held, but keep it short and concise. Oh, and at the end, list the computer systems you use.

Here's a fact that will get your attention: 400 resumes typically arrive during the first 2 days that a job listing appears - at least in Michigan at the present time. Hence, your resume has to set you apart from the other 399 applicants with whom you're competing.

By the way, applying to fewer jobs that are really a fit for your background is probably a better approach than taking a shotgun approach and aiming at everything out there. It really helps to print out each job description, customize your resume for that job opening, and then feeding back some items from the job description.

Hopefully you are doing this already. For whatever reason, finding a new job in the current economy is a matter of numbers and it just takes time. It is discouraging to see so many jobs pass you by that you are a perfect match for, but nobody calls back. So what do you do?

Painful as it is, the best way of finding a job is networking through personal contacts. Ask around. There may be a job available that hinges on your friend's employer getting a new contract. Don't be afraid to check back and keep networking with your contacts. In most cases, people really do want to help you. It may feel to you like you're begging "hire me, hire me," but it's not that way at all. Your friends want to help. Sales engineers in particular know what companies are doing well, and have a name you can call. Spend at least 2 hours a day on the phone. Experience has shown me that it's the most productive time you will spend all day.

Next, join LinkedIn (**www.linkedin.com**). Invite everyone you have ever worked with to join your network on this system. Each of them have invited everyone they ever worked with to join their own personal network. Then, when a job advertisement appears, you may well have someone in your LinkedIn network who works at that company and will hand deliver your resume to the hiring manager. If you have a narrow engineering specialty, join The Ladders (www.theladders.com). Also, search the internet for specific ihiremanufacturingengineers. And don't overlook the networking opportunities that can come from professional societies like SPE. There are now city-by-city internet sites for job listings. Another suggestion for those in the United States is to try the US government website **www.usajobs.gov**.

In my opinion, using the internet to job search is worth 2 hours a day, but no more. Your email inbox will soon turn up more good job matches than you have time to fill out application forms.

Last, definitely find some good recruiters and stay in touch with them by at least a weekly phone call. That is how I found my new job. I have a great recruiter at Aerotek. You would like to think your resume is in the recruiter's database, and your excellent qualifications will make the resume pop to the top of the list when a new job appears. Unfortunately, if you want to get another job quickly, it's best not to believe this. For most recruiters, what you have to do is continually check recruiter job sites and then call the recruiter when you see a really good job match. Yes, that takes another 2 hours a day and it does get old and repetitive pretty quickly.

You'll noticed I didn't suggest "Monster" or "Career Builder" or "CleanTechJobs." Go ahead and register with each of them, as it probably won't hurt to do so and some people do find a new job that way. Use several resumes that are short, concise, and very specific. Do customize your resume and cover letter for each job opening you find on these services. If you do not want to do that, in my opinion your resume will be one of the 390 that are not called, rather than the 10 of 400 resumes that do get called for each job opening.

You also noticed 2 hours + 2 hours + 2 hours = 6 hours per day allocated to job searching. I did not do that. Instead, I spent 8-10 hours Monday through Friday just like I would at a regular job. If I had to do it over again, I would do it differently. I've learned that I'd have been fresher if I'd spent more time exercising, or repainting the house, or working on model trains (my hobby and passion). I think I would have found a new job just as soon if not sooner than I actually did. And I'd have felt better about it too.

Good luck in your job search. Everyone who wants one does find a new job eventually. You have good qualification that would benefit many employers and somewhere there is a hiring manager with just your personality. Hang in there. It is a painful experience, but it is only temporary.

Board of Directors Meeting Minutes

Monica Prokopyshen

Meeting held December 7, 2009 at American Chemistry Council in Troy, MI - 5:30 p.m. - 8:00 p.m.

Attendees

Ron Price, Monica Prokopyshen, Jeff Helms, Nippani Rao, Peggy Malnati, Johanne Wilson, Yvonne Bankowski, Tom Pickett, Jackie Rehkopf, Norm Kakarala, Mike Masserant, Ed Garnham, Bill Pippine, Mike Whiten, Chuck Jarrett, Fred Deans, Suzanne Cole, Jay Raisoni, Ben Soltisz

September minutes approved.

Education

The second half of the 2009 fiscal year Plastivan program funding was approved.

Budget Discussion

The tax and the annual reports were filed and the major financial outlays for the Innovation Awards Gala (IAG) have been paid (Burton Manor & Mike Voorhes production company.) A slight surplus is projected for the IAG.

Last year the division voted to donate the SPE International rebate back to SPE International, and recommended the same for this fiscal year.

Membership

Johanne Wilson would like to transition from the membership chair position early next year as has asked who might be interested in the position. National reduced membership fees $5.

SPE Social Programs

Bill Pippine scheduled a wine tasting event ($10/person) for Jan. 28 at the Royal Oak Winery. Suzanne Cole proposed an SPE membership ski weekend event at Boyne Mountain. The motion to allocate up to $7000 for this event was carried.

Councilor's Report

Detailed information on the council meeting is available on the SPE website. The 2010 budget was approved and a number of bylaw changes were approved, including electronic participation which allows for greater regional councilor participation. The success of SPE events depends on large industry sponsors; NPE/SPE had 30,000 fewer people than expected this year. Nippani Rao's term ends in May 2010. If interested in running for election, you may contact Nippani for information.

Inter-society

Jackie reported a new sponsor.

AutoEpcon

Norm reported that AutoEpcon is scheduled for April 27th, 2010. Details are included in this newsletter.

Marketing/Communications

Additional business cards were ordered, a 9" x 12" SPE walnut name plate for the ACC office, and Peggy Malnati will be submitting a nomination for the new MARCOM excellence award.

The ACCE Conference showed a small net gain; expenses had been pared down 24%. The venue and three days have been reserved for the 10th anniversary conference, including an ACA / SPE golf outing day beforehand. The vehicle has been selected; the search is currently underway for a working vice chair for the conference. The student poster contest, cosponsored by Dow, which debuted at the ACCE had participants from 5 different schools, the furthest being in North Dakota. All proceedings guides and CD content for the event's first 9 years have been migrated to the SPE AD web site.

IAG: The press and web releases went out immediately the evening of the gala and the Flickr account was updated immediately afterwards. Although there were fewer Gold and Silver sponsors, there were more last minute advertisers and Bronze sponsors. Media feedback on the Flickr has been very positive.

Best practices: All media swap ads were negotiated at once for the first time in 2009. The successful early sponsor discount program is being renewed for the 2010 ACCE. More eblasts and press releases were published in 2009.

Web traffic: There were 19,100 unique hits in November. European universities have incorporated SPE AD technical papers in their curricula. Most visitors look at 2 to 3 pages of content. The new web host provides greater service and more bandwidth at 87% lower cost than the previous provider.

Newsletter

Solid sponsorship. Deadline for submissions in December 11, 2009. Barry Boyce submitted an article on getting a job in this tough economic climate.

New Business

The Automotive Division proposed a joint tribute to Fred Schwab with the Detroit Section. A subcommittee will investigate ideas and report back.

Jeff Helms will send out the contact list for updates.

Next Meeting

February 1, 2010- election of board members


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SPE Automotive Division

Grand Award Winner by Year

Year	OEM	Application	Material
2008	BMW	Twin-Sheet Blow-Molded Fuel System	HDPE
2007	General Motors Corp.	Backlighting with Color-Converting Plastic	PC
2006	DaimlerChrysler	Blow-Molded Front- & Rear-Bumper System	TPO
2005	Honda Motor Co.	Composite In-Bed Trunk	SMC
2004	Ford Motor Co.	Door Trim with Integrated Acoustic Chamber and Subwoofer	PP
2003	DaimlerChrysler	Roof Module	PC Copolymer
2002	DaimlerChrysler	Extruded Polymer Film Fascia	Multi-Layer Ionomer
2001	General Motors Corp.	Nanocomposite TPO	Nanocomposite TPO
2000	Ford Motor Co.	Controlled Energy Management Bumper Isolator	HDPE
1999	DaimlerChrysler	Fan Shroud and Reservoir Assembly	PP
1998	Mitsubishi Motors	“I” Section Bumper Beam	PP-GMT
1997	Ford Motor Co.	“Carpet to Car Parts”	PA
1996	General Motors Corp.	Structural Battery Tray	PP-GMT
1995	Ford Motor Co.	Integrated Front-End System	SMC
1994	General Motors Corp.	Thermoplastic Air-Intake Manifold	PA Copolymer
1993	Ford Motor Co.	Front-Suspension Stabilizer Link	POM
1992	Chrysler Corp.	Instrument-Panel System	GMT, MPPE, PP & PU Foam
1991	Chrysler Corp.	Integrated Child’s Seat and Top Impact Pad	PP-GMT, Expanded MPPE
1990	General Motors Corp.	Exterior Door Panel	PC/ABS
1989	Chrysler Corp.	Composite Wheel	SMC/XMC
1988	General Motors Corp.	Front Fender	MPPE/PA
1987	General Motors Corp.	Quarter-Panel Assembly – Sportside	SMC
1986	General Motors Corp.	Quarter Window	PMMA
1985	General Motors Corp.	Windshield with Anti-Lacerative Layer	Polyvinyl Butyral/PE Film
1984	Ford Motor Co.	Drive Shaft	Vinylester/Graphite/Glass
1983	General Motors Corp.	Exterior Body Panels	SMC, RIM, RRIM, & TPO
1982	General Motors Corp.	Tailgate Assembly	SMC
1981	Ford Motor Co.	Radiator-Core End Caps	PA
1980	General Motors Corp.	Rear-Axle Leaf Spring	Epoxy
1979	Ford Motor Co.	Grille-Opening Panel Assembly	SMC
1978	General Motors Corp.	Bucket-Seat Frame	SMC
1977	Ford Motor Co.	Instrument Panel	
1976	Ford Motor Co.	Fender Aprons	PP
1975	American Motors Corp.	One-Piece Jeep Top	PC
1974	General Motors Corp.	Fascia and Rear Bumper Cover	RIM-PUR
1973	Ford Motor Co.	Block-Heater Motor Housing	
1972	General Motors Corp.	Radiator Fan-Shroud Assembly	PP
1971	Ford Motor Co.	Transmission Reactor	Phenolic

Councilor's Report

Nippani Rao

I attended the council meeting in Southbury, Connecticut, on October 24, 2009 and the following summarizes the highlights.Detailed information on the council meeting is available on the SPE website - www.4spe.org

This is the first meeting with electronic participants and there were 25 councilors and proxies.

SPE President Dr. Paul Andersen presented his goals for the coming year. He attended our ACCE conference in Detroit and was fairly impressed with the conference.

Paul discussed the SWOT analysis. SWOT stands for **S**trength, **W**eaknesses, **O**pportunities and **T**hreats.

Briefly the "SWOT" SPE International is:

- *Strengths* are…large diverse pool of members.
- *Weaknesses* are….Lack of financial support for Sections/Membership
- *Opportunities* are…Leverage Sections to market local companies to recruit new members.
- *Threats* are….Getting members to recruit new members has been difficult.

Elections

Council elected the following for 2010-2011:

- President-Elect: Russell Broome
- Senior Vice-President: James Griffing
- Vice-President: Bill Arendt
- Chair for the Council Committee of the Whole: Dale Grove

Budget

The Council approved the 2010 budget and it consists of, gross income of $4,040,000, direct expenses of $3,922.114 and a net income of $117,826. Details of the budget are available on the SPE website for Section and Division board members.

Bylaws & Polices

A number of changes were approved by the council on the recommendation of the Bylaws & Policies Committee,the details are on the SPE website under **http://www.4spe.org/council-summaries**

Committee Meetings

President-elect Ken Braney gave a video presentation on the European Automotive awards and presented meeting schedules for 2010/2011

Ashu Sharma reported on the activities of the Divisions Committee. The Medical Polymers Europe Division in formation was recognized and a presentation was given by David Howard.

Councilor Lance Neward, chair of the Corporate Outreach committee gave an update on the activities.

Councilor Jamal El-Hibri member of the communications committee gave a presentation on the new Communications award. Details are being developed.

Helen Basso, chair of the Council committee of the whole conducted the meeting prior to the council meeting. Some of the items discussed are: TopCon seed money, need for better income streams, Councilor requirements and mentor program and an announcement regarding the Plastics Pioneers Association's Plastics History & Artifacts Committee.

Presentations

Councilor Greg Campbell of the Extrusion Division on ***2010 and Beyond, Leading and Managing Change***

David Howard of the Medical Polymers Europe Division-in-formation gave a presentation on the ***SPE Ambassador College Program***

The next council meeting is scheduled for May 16, 2010 in Orlando, Florida (ANTEC 2010)

ANTEC 2010

The SPE Annual Technical Conference (ANTEC) will take place at the Orlando World Center Marriott Resort and Convention Center in Orlando, Florida from May 16 - 20, 2010. It is the world's largest international gathering of engineers, scientists, and business professionals in plastics.

ANTEC 2010 papers have two tracks - technical and commercial. The technical track includes traditional ANTEC papers which describe the new technologies and techniques currently being developed in the plastics industry. The commercial track papers focuses on real world (commercial) applications of the new technologies.

"In the past two years since we introduced separate tracks, we've seen terrific growth in commercial paper submissions," explains Donna Davis, SPE Past President and ANTEC 2010 Technical Program Chair. "While technical papers are the essence of what ANTEC is all about and are extremely valuable, the number of commercial paper submissions doubled in 2009. We expect to build on that progress and to continue to engage the industry by adding even more of these contributions to next year's technical program."

SPE partnered with Wiley Publisher to manage the ANTEC 2010 Exhibition. Susan Oderwald, SPE's Executive Director explained. "Wiley's reputation and expanding reach into the plastics industry and vertical markets aligns with our goals to make next year's ANTEC a must global plastics professionals seeking the latest advances and solutions via presentations and contacts made on the tradeshow floor."

If you want to learn about the latest technology in plastics automotive, plan to attend the Automotive Division Session of ANTEC. This session is well attended each year by leaders in the Automotive Industry. The Chair of the 2010 ANTEC Automotive Division Session is Tom Pickett. Helping Tom review papers for the ANTEC Automotive Session are Norm Kakarala, Jay Raisoni, and Suresh Shah.

For more information about ANTEC, visit the website: **www.antec.ws**, or contact Lesley Kyle by phone at 203-740-5452 or e-mail lskyle@4spe.org

Membership Report

Johanne Wilson

The SPE Automotive Division would like to welcome the following new and renewing members.

Mark Moss	Synventive
Brian Dujardin	ExxonMobil Chemical
Rubin Cal	Milliken Chemical
Yutaka Kobayashi	Advanced Composites Inc
Adam Mosler	Cycled Plastics LTD
Richard Umemoto	Techmer PM
Shinji Yamauchi	Tokyo Printing Ink Corporation
Jenni Finkelstein	Repco Services LLC
Phil Kusky	Continental Structural Plastics
Edward Zhou	
Prasanna Godbole	Bayer Material Science
Mike Whitens	Ford Motor Company
Kevin Ott	
Mark Bauza	Kalcor Coatings
Pete Grundberg	Underwriters Laboratories
Onofrio Palazzolo	United Initiators
Joel Pierce	
Neerav Shah	
Lance Nunley	
Paul Cylenica	Saati
Shige Yasui	Mitsui Chemicals America
Stephen Regular	The SWT Group
Ryan Boucher	Global Sourcing and Management
Nikolas Kaprinidis	Ciba SpA
Ben Soltisz	
Evan Piland	Midwest Elastomers Inc
Daniel Lopez	
Brian Ruhland	RTP Company
Alessandro Rollo	Rollo Capital
Brooks King	
Yogendra Ramnarain	
Jared Peacock	Toyota
Duane Juriga	Futuris Automotive Interiors
Larry Langell	Ferris State University
Dhwaihi Alotaibi	UMass Amherst
Tom Delay	BYK
Gerard Mazur	Dow Automotive
Patrick Thomas	
Denise Carlson	Denso Internat'l America
Anna Jaffe	MIT
James Jonza	3M Company
Matthew Kaye	Clinton Aluminum and Stainless Steel
UV	SABIC Innovative Plastics
Chuck Jarrett	SABIC Innovative Plastics
James Otis	Dow Chemical Company
Michael Miga	Consolidated Metco
Richard McCann	Analog Devices
Shashank Karnik	
Cheryl Weckle	The Dow Chemical Company
Erin Mclaughlin	
Mark Colston	Schaeffler Group
Thomas Barr	AkzoNobel - Soliant
Yvonne Bankowski	
Josh McIlvaine	DuPont
Eric Heilshorn	Alcan Baltek
Ronald Hertzer	
Daniel Heberer	Huntsman Polyurethanes
Leonard Fifield	Pacific Northwest National Laboratory
Andrew Wasco	
Deborah Viges	Toray Resin Company
Christopher Murphy	Dupont
Cynthia Hammer	L Lewallen Co Inc
Mark Paddock	Arburg USA Inc
Daniel Catalano	Zotefoams Inc
Jennifer Stewart	SABIC Innovative Plastics
James McKinnon	
David Haydon	Sky-Tek
Paul Van Wyck	Target Recycling Services Inc
Harry Lee	Sun Industries
Tom Walczak	Dickten Masch Plastics
Mark Innes	NRC (National Res. Council of Canada)

SPE Honors All-New Ford Taurus with 2009 Vehicle Engineering Team Award

The Automotive Division of the Society of Plastics Engineers International today honored Ford Motor Co. with its Vehicle Engineering Team Award (VETA) for the automaker's significant use of innovative plastics content on the 2010MY Taurus® sedan. Pete Reyes, chief program engineer-Taurus at Ford accepted the award during SPE's 39th-annual Automotive Innovation Awards Gala on November 12, 2009.

SPE's Vehicle Engineering Team Award recognizes the technical achievements of teams comprised of automotive designers and engineers, tier integrators, materials suppliers, toolmakers, and others whose work - in research, design, engineering, and/or manufacturing - has led to significant integration of polymeric materials on a notable vehicle. Previous winners of this award include Porsche AG in 2004 for the '04MY Porsche® Carrera® GT supercar and Ford Motor Co. in 2008 for the '09MY Ford® Flex cross-over utility vehicle.

When Ford introduced the original Taurus sedan in 1986, it quickly became the company's best-selling vehicle. The "new" upscale 2010 Ford Taurus sedan, which launched this past August, sports an impressive collection of innovations and luxury features - many made possible by polymeric materials. The vehicle has already received a top safety designation by the Insurance Institute for Highway Safety (IIHS), and Esquire magazine named the performance-model Taurus SHO sedan as its first-ever Car of the Year.

The 2010MY Taurus sedan features an innovative set of standard and available technologies (many of them patented or patent-pending), including Adaptive Cruise Control with Collision Warning; Intelligent Access with Push Button Start, MyKey™ parental programmability; Blind-Spot Information System (BLIS®) with Cross-Traffic Alert; Rain-Sensing Wipers; EasyFuel® capless-refueling system; Ford SYNC® and SIRIUS Travel Link™ voice navigation system.

Pete Reyes, Chief Program Engineer - Taurus

he base-model Taurus sedan is powered by the 3.5L V6 Duratec® engine, while the Taurus SHO model features Ford's 3.5L V-6 EcoBoost™ engine that delivers 365 HP. These engines are mated to one of two available fuel-efficient six-speed automatic transmissions, including SelectShift Automatic™ transmissions with shift paddles and available all-wheel drive.

Pete Reyes, chief program engineer-Taurus (center with trophy) and other members of the Ford Taurus development team.

Interior innovations that relied on the benefits of polymeric materials include targeted ultra-soft foam on the instrument panel to improve craftsmanship, spray urethane skins on the instrument panel and door trim (the latter featuring molded-in faux stitching to replicate the look and feel of fine leather but with higher durability at lower cost). Other notable interior components include world-class fit and finish of the all-plastic console top finish panel with three-in-series push-push doors, and multi-contour seats with the Active Motion™ feature that makes use of an ultrahigh-durability pneumatic bladder for lumbar support.

Plastics-intensive exterior innovations include the Blind Spot Information System; a faster cycle TPO fascia material; the EasyFuel capless refueling system; below-belt plastic brackets for door outer panels and door glass (replacing steel channels); an industry-first snap-in slider on the window regulator to satisfy the aggressive window design on the vehicle; and tri-extrusion outer belt weatherstrips. The vehicle also features new active crash-avoidance technologies such as radar-enabled advanced collision warning system; blind-spot monitoring; and a cross-traffic alert that warns drivers about hard-to-see vehicles in parking lots.

These innovations benefit vehicle occupants through greater comfort, convenience, durability, and safety, while also helping the environment by reducing weight (thereby improving fuel efficiency), eliminating paint and other VOCs, increasing the use of recycled materials, and making greater use of carbon-sequestering bio-based resins and natural-fiber reinforcements, which helps reduce the carbon footprint of the vehicle throughout its lifecycle.

In addition to winning the 2009 VETA award, 13 components from the Taurus sedan were entered in SPE's Automotive Innovation Awards parts competition, with five of those nominations achieving Finalist status in three judging categories:

Body Exterior

- Low Profile Outer Belt Weatherstrip Design ***
- Glass Run Weatherstrip Corner Mold Overlays ***
- Blind Spot Information System w/Cross Traffic Alert
- Metallic-Look Headlamp Bezel ***

Chassis / Hardware

- Snap-In Slider on Side Door Window Regulator Hardware
- Door Glass Bond- On- Bracket
- Below Belt Door Glass Retaining Bracket ***

The 2010 Ford Taurus

The front door panel 2010 Ford Taurus, with the 2009 Process, Assembly, & Enabling Technologies category finalist - Molded in Faux Stitching

Body Interior

- Non-reinforced console top finish panel with World-Class Fit/Finish

Materials

- Fast Cycle Time Material for Fascia's and Exterior Trim

Process / Assembly / Enabling Technologies

- Composite Hybrid DLFT Bolster w/ a Glass Mat Reinforcement
- Door panels with molded in faux stitching ***
- IP Soft Foam Feel
- Ultrahigh-Durability Pneumatic Bladder

*** 2009 Category Finalist

Irv Poston, 2009 SPE Automotive Division Lifetime Achievement Award Winner, Gives Career Advice to Young Engineers

Editor's Note: Irv Poston was the 2009 SPE Automotive Division's Lifetime Achievement Award winner, an honor he received November 12, 2009 at the SPE Automotive Innovation Awards Gala. Irv had a long and distinguished career at General Motors Corp. and was responsible for numerous automotive plastics "firsts". He also was one of the founders of the SPE Automotive Division and volunteered with many engineering societies during his 42-year career. The career advice presented below is pulled from Irv's acceptance speech for the Lifetime Achievement Award.

I've called my talk "Keys to Success in a Competitive Career." Of course, there are many factors that could be considered in such a title, but I'll try to boil them down to 4 primary keys to success and then give some examples of each.

- First is ***Be Passionate*** in your work.
- Second is ***Be Creative*** in your projects.
- Next, ***Be Informed*** in all aspects of your endeavor.
- Finally, ***Be Connected*** to expand your horizons.

Let's look at these one at a time. The first key is to ***Be Passionate***. Enjoy your work. Love your job and be dedicated to excelling in all that you do. Share your enthusiasm with others and encourage them to work with you. Build a team of peers to efficiently and effectively advance the concept. Demonstrate the value of using new technology to the advantage of everything involved - from raw materials to the ultimate consumer.

It's not simply enough to be passionate about your work, it's also important to ***Be Creative***. Visualize the future. Look beyond the status quo. Reach for new horizons. Try new things. Learn from your mistakes or problems that hinder progress in concept development so that new routes can be taken to make improvements. Circumvent "We've tried that before," which usually means that problems were numerous and success was evasive. Find out what went wrong and explore how a new direction could be taken to resolve the problems of the past. Avoid the "Not Invented Here" syndrome by teaming with the project leaders and sharing cooperation in joint developments to advance the ideas.

It's essential to be knowledgeable in your work, and this requires you to ***Be Informed***. Consult with mentors and peers to understand every aspect of the intricacies of you ideas. See what others think and consider their assessment. Know and understand the business to be sure you are headed in the right direction with all of the tools you need. Read trade papers and magazines as a source for new and emerging technologies in your own industry as well as in other industries. Participate in technical societies like the Society of Plastics Engineers and the Engineering Society of Detroit. The knowledgebase and networking opportunities are unlimited.

This leads to my final key to success: ***Be Connected***. Intra company committees are a great way to meet and get to know people in your company, not only in your field, but in other fields were ideas can be cross-pollinated. Inter company consortiums provide a further step to meet with others who share common goals with broad experience. A good example is USCAR, the United States Council for Automotive Research.

University R&D centers provide not only a good source of advanced technology and knowledge, but provide the opportunities to meet people from various industries who are interested in solving common problems. Good examples for polymer composites are the University of Delaware and Michigan State University. Linked In technical groups give the ability for online discussions to seek or provide answers to questions that help avoid or resolve problems.

The SPE has an extensive network on Linked In as well as Facebook and others. In fact, the best way stay connected for all of us is through SPE for networking and knowledge at technical meetings, seminars, and conferences. SPE has a wealth of resources online internationally, locally, and in the Automotive Division. Check out all of these websites for your keys to success.

Thank you again for the honor you have given me tonight, and I wish you all great success in your careers.

Irv Poston Receives Lifetime Achievement Award

Irvin E. (Irv) Poston, who had a long and distinguished career at then General Motors Corp. (GM) and was responsible for numerous automotive plastics "firsts," has received the prestigious Lifetime Achievement Award from the SPE® Automotive Division. Poston was honored at the 39th-annual SPE Automotive Innovation Awards Gala. The Lifetime Achievement Award recognizes the technical achievements of automotive industry executives whose work - in research, design, and engineering, etc. - has led to significant integration of polymeric materials on vehicles.

First given in the year 2000, past winners of the award include:

- J.T. Battenberg III, former chairman and chief-executive officer of Delphi;
- Bernard Robertson, then executive vice-president of DaimlerChrysler;
- Robert Schaad, chairman of Husky;
- Tom Moore, retired vice-president, Liberty and Technical Affairs at DaimlerChrysler;
- Mr. Shigeki Suzuki, general manager - Materials Division at Toyota Motor Company;
- Barbara A. Sanders, director - Advanced Development & Engineering Processes at Delphi Thermal Systems;
- Josh Madden, retired General Motors Corp. & Volkswagen of America; and
- Frank Macher, formerly CEO of Collins & Aikman Corp., Federal Mogul Corp., and ITT Automotive, as well as spending 30 years at Ford Motor Co.

Irv Poston retired in 1997 after 42 years with GM. When he left the company, he was head of Plastics (Composites) Development at GM's Tech Center, a position he had held since 1968. Poston's team was heavily involved in developing sheet-molding compound (SMC) and reaction-injection molding (RIM) equipment, processes, and applications for the automaker, but also worked with injection-molded thermoplastics and thermosets. Poston guided the team to emphasize the importance of simultaneous development of materials, design, manufacturing, and testing. His (and his team's) success is evident in the list of automotive-plastics firsts he was personally involved in launching:

- Injection-molded polypropylene fender liner/skirts,
- RIM "friendly" fenders,
- SMC tailgates,
- Polyurethane bumpers (for a fleet of taxi cabs -despite insistence by the design staff that chrome bumpers would never be replaced on production cars),
- The all-composite-bodied Fiero® sports car, and
- RIM and SMC body panels.

Poston showed early interest in plastics and composites. He did a project on plastics molding for his Master's degree while at Purdue University. Upon joining GM full time after college (Poston had worked at the automaker while still in college), he established the first plastics department at the Allison Division of GM during 1955-1957 and quickly became active on GM's Plastics Committee, a group he went on to chair. In 1957, he transferred to GM's Tech Center to establish the facility´s new Plastics Group in the center's Process Development Section.

Accepting the Lifetime Achievement Award from David Reed (L) is Irv Poston.

Among the honors Poston has garnered over the years, in 1961 he was awarded the Outstanding Leadership award from SPI's Plastic Tooling Division, and eight years later was awarded SPI's Man of the Year award. In 1973, Poston was given the Man of the Year award from the Detroit Section of SPE, and in 1993 he was granted SPE International's Distinguished Member status. Next, he was honored with the Distinguished Service award by the Engineering Society of Detroit (ESD) in 1997, and in 1999 he was granted Fellow status by ESD. And in 2005, Poston was honored with the Lifetime Achievement award by the Detroit Section of SPE and was granted Director Emeritus status by SPE in 1997. Additionally, he was one of 10 nominees nationwide in Design News magazine's 1995 Engineer of the Year award and - although he did not win - was the only automotive or plastics engineer represented among nominees, which included Alan Mulally.

Poston grew up in Attica, Ind. near Purdue University where he received BSME (1954) and MSIE (1955) degrees. He was also a drummer in the school's Symphonic Band and All-American Marching Band for four years. In fact, Poston still returns to the school to play in its every-other-year alumni band at homecoming, and played percussion for the Pontiac and Rochester Civic Symphony Orchestras for 45 years. He is an elder and deacon in his church and a member of many church committees. Poston's hobbies include music, photography, audio/video systems, model electric trains, and magic. He has been married for 54 years, and has four children, 11 grandchildren, and one great-grandchild.

He was a member of the board of directors of Furniture Bank of Southeast Michigan, where he also edited the organization's newsletter and maintained their database for a major capital-fund drive. Since retirement, Poston has been a member of the Senior Men's Club of Birmingham, where he is a member of the executive board, serves on various committees, and is currently president-elect.

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