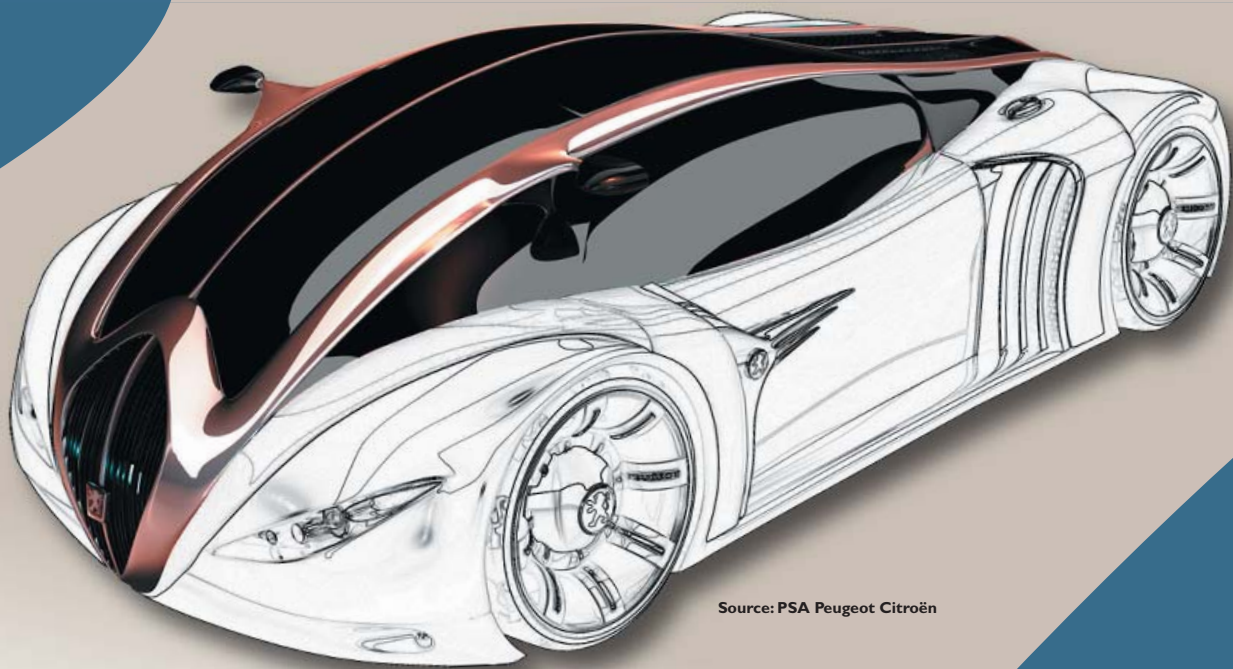


Above-The-Belt Line Modules and Systems

2005



Source: PSA Peugeot Citroën

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December 1, 2005
Sheraton Detroit Novi
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Final Program

Above-The-Belt Line Modules and Systems

AGENDA

Please note that conference proceedings are not available

7:00 -

8:00 a.m. **Registration and Continental Breakfast**

8:00 a.m. **Opening Remarks - Role of Glazing in the Automotive Market**

*Dr. Joel Kopinsky, Principal
The ITB Group (U.S.A.)*

Glazing System Developments

8:15 a.m. **Thermo-Mechanical Behavior of PC Panels**

GE Plastics (U.S.A.)

The influence of the role of adhesives on the dimensional stability of polycarbonate panels will be evaluated. Finite element analysis and Design of Experiment studies were carried out using geometric parameters of the roof and the adhesive. Suitable transfer functions were built with the study of various effects of these parameters and an optimal design was obtained for a given configuration of a roofing system. A new polycarbonate resin will be presented together with its expected performance.

8:45 a.m. **Polycarbonate Glazing Systems for Roof Applications**

Exatec (U.S.A.)

The market for large opening automotive roof systems is growing rapidly and offers entirely new construction and design options for automotive manufacturers. A new polycarbonate glazing system specifically designed for vehicle top applications will be introduced that offers a materials alternative with reduced weight, complex shape capabilities together with function integration opportunities for significant cost reduction to the OEMs.

9:15 a.m. **Advances in Automotive Glazing – Towards Higher Complexity**

Saint-Gobain Sekurit (U.S.A., Germany)

New glass transformation processes and leading edge technologies are allowing glass makers and designers the freedom to use complex shapes for innovative design and functional glazing for improvements of safety and comfort. Examples such as panoramic windshields, glazing with smaller

tolerances to accommodate complex head-up displays and active functional glazing will be discussed. Future applications and developments will be considered.

9:45 a.m. **Mid-Morning Break**

10:15 a.m. **Plastic Glazing – From a Vision to Established Series Production**

Freeglass (Germany)

Innovative styling options possible with the use of PC for transparent surfaces will be presented. Integration, a key element of this approach to be competitive with glass, will be discussed in applications such as roof systems, backlites and sidelites.

Innovations in Weatherstrips

10:45 a.m. **Daylight Opening Modular Surround**

Cooper Standard (U.S.A.)

A new innovation, the Day Light Opening Module, which eliminates fit and finish issues relative to how the glassrun, outerbelt and appliques interface with each other will be introduced. The advantages and benefits of this product will be discussed and door constructions applicable for these modular surround systems will be reviewed.

11:15 a.m. **TPV Slash Door (Flush Glass) Seals**

*DSM Thermoplastic Elastomers (The Netherlands)
GDx Automotive (Germany)*

Body seal components are becoming increasingly complex in an attempt to improve seal performance styling. For dynamic body seal applications, a new TPV concept of an integrated glass run channel and roof seal for slash door frames has been developed and validated. This presentation will discuss the basic concept and the first results obtained on practical tests on a vehicle.

11:45 a.m. **Lunch**

12:45 p.m. Properties and Structure of TPV and EPDM Vulcanizates Bondable Grades for Automotive Profiles

JSR Corporation (Japan)

The development of a high melt flow TPV that is bondable with EPDM, specifically for corner molding applications, will be discussed. With this material, the correlation between the degree of crosslinking, particle size and particle distribution have been optimized for improved performance.

1:15 p.m. Resolving the Challenges of Applying Taped Weatherstrip Seals

3M Automotive (U.S.A.)

Taped weatherstrip seals offer lower weight, lower cost, and improved NVH. The challenge of using a taped weatherstrip seal product is how to apply the seal to a vehicle. This presentation will review a spectrum of technologies to successfully and efficiently apply taped seals to vehicles and parts.

1:45 p.m. The Right Material for the Right Weathersealing Application

Metzeler Automotive Profile Systems (U.S.A.)

An analysis of the advantages and disadvantages of the most prevalent weathersealing materials currently used together with specific design recommendations for the types of material based on Material Selection Criteria will be presented. A systematic process to determine the right design for sealing systems and applications for the use of bright appearance coatings on belt-line seals will be addressed.

3:15 p.m. Rollbar Protection Systems for Convertibles

ISE Innomotive Systems (Germany)

Rollover protection systems have been an integral component of convertible design and safety for over 15 years. In modern times, the importance of occupant safety has been matched by the desire for these systems to integrate seamlessly into the overall vehicle design and styling. An overview of rollover protection systems along with market and customer requirements to maximize occupant safety will be discussed.

3:45 p.m. Global Regulatory and Ratings Drive Changes Above-the-Belt Line

Enhanced Protective Glass Automotive Association (U.S.A.)

Significant changes in rollover regulation, ejection reduction measures, vehicle safety ratings and emerging security ratings will drive many design changes in above-the-belt systems. This presentation will explore likely changes and the potential design challenges posed by the modifications of global ratings. Roof strength and crush, ejection mitigation and security performance for window areas will be highlighted.

4:15 p.m. Polymer Based Composite Roof Systems

Bayer MaterialScience (U.S.A.)

A new system approach to roof modules based on a standardized body-in-white roof structure that allows a vehicle to be fitted with a variety of roof systems, will be introduced. Conceptual designs, roof module constructions and materials and performance characteristics will be reviewed. Results of a case study comparing a polymer based roof systems to a baseline/traditional roof will be highlighted.

Roof Modules - A Paradigm Shift

2:15 p.m. Plastic-Metal Alternative to High-Strength, Thick Stampings for Body Structures

Lanxess Corporation (U.S.A.)

The use of plastic-metal technologies as an alternative to high-strength steels in body structure applications will be highlighted. The advantages of this technology include increased formability, reduced weight and improved NVH/noise performance within the current build process constraints.

4:45 p.m. The Market Entrance of the Three Parted Retractable Hardtop

Webasto/OASYS (Germany)

A new three parted retractable hardtop has been developed for the new Volvo C70 which provides maximum occupant space while maintaining proper vehicle dimensions and optimal styling. The advantages, complex functionality and high quality level of this roof system will be discussed. Lessons learned from an OEM in-house, just-in-sequence production will also be addressed.

2:45 p.m. Afternoon Break

5:15 p.m. Closing Remarks

Decoma International (Canada)

5:30 p.m. Cocktail Reception

Consulting Expertise



39555 Orchard Hill Place, Suite 225
Novi, Michigan, U.S.A 48375
Telephone: (248) 380-6310, **Fax:** (248) 380-7294
E-Mail: email@itbgroup.com
USA • Europe • Japan
www.itbgroup.com