



Scope of 2022 Technical Program Sessions

Technical Program Co-Chairs:

- Dr. Norm Kakarala, SPE Fellow
- David Helmer, General Motors Company
- Mike Balow, Auxin Consulting

Materials Development Session

Co-Chairs:

- Catherine Wilson, Ford Motor Company
- Mark Jablonka, The Dow Chemical Company
- Peter Glenister, LyondellBasell

Session Scope:

- New developments in polyolefin resin, talc, mineral, and other filler/reinforcement materials.
- Innovations and new applications for high rigidity polyolefin compounds or composites with either fibrous or non-fibrous reinforcement.
- New developments and innovations in impact modification.
- Advancements in both traditional and novel additives and stabilizers to improve product performance.

Interior Applications and Laminating Adhesives Session

Co-Chairs:

- Dr. Pravin Sitaram, Haartz Corporation
- Austin Wagenhals, Ford Motor Company
- Hoa Pham, Freudenberg LP

Session Scope:

- Interiors for the Future – Evolution of applications & materials in automotive interiors
- Polyolefin Foams for Interior applications – Evolution of processes for auto trim parts, including laser engraving.
- Acoustic Opportunities for TPO and TPE.
- Smart materials & surfaces in Automotive interiors. (Conductive, Energy harvesting, Anti-microbial)
- Next generation coatings for TPO substrates.
- Laminating Adhesives for Automotive Interiors.

Process Developments, Additive Manufacturing and Simulation Session

Co-Chairs:

- Dr. Suresh Shah, SPE Fellow
- Matt Sprouse, Washington Penn Plastic Company

Session Scope:

- Process optimization approaches to stay competitive.
- Part molding techniques for optimizing efficiency.
- Tooling approaches for optimal surface appearance.
- Developments in Additive Manufacturing
- Part forming innovations by injection and blow molding, extrusion, compounding and thermoforming.
- Performance Simulation for Stiffness and Strength, Durability and Fatigue, Crash Safety, and joints.
- Predictive modeling and process simulation tools such as mold flow/CAE/FEA
- Material Modeling, performance stimulation, testing, and characterization of TPO.

Sustainable Materials and Parts Session

Co-Chairs:

- Mike Balow, Auxin Consulting
- Mark Allen, Dow
- Murali Reddy, CPK IP

Session Scope:

- Materials from Bio-Based, Advanced Recycling and Mechanical Recycling
- Design for Recycling with Focus on Disassembly, Separation and Rejuvenation
- Infrastructure Developments
- Success Case Studies
- Perspectives from Recyclers
- Balance of Circularity and Carbon

Polyolefin Elastomers and Vulcanizates Session

Co-Chairs

- Dr. Bhavesh Shah, Lion Elastomers
- Dr. Dave Patel, Mitsubishi Chemical
- Dr. Nadeem Bokhari, Sumitomo Chemical

Session Scope:

- Automotive seals and gaskets
- Soft touch and over molding
- Thermoforming of TPE and TPV
- Advances in the areas of compression set, high temperature resistance, oil resistance, and NVH
- Coolant hoses
- Sustainable (PCR /PIR) and biobased TPEs and TPVs

Performance Additives and Colorants Session

Co-Chairs

- Nancy Cliff, BASF
- Dr. John Mara, Amfine

Session Scope

- Under-the-hood: Thermal stabilization, Fire prevention, Physical property enhancements and durability
- Exterior: Weatherability, scratch resistance, physical properties/durability
- Electrical shielding: Dissipative and conductivity enhancing additives
- Interior: Surface modification, antimicrobials, durability improvers such as thermal and light stabilizers, and nucleating agents
- Sustainability: Enable increased use of sustainable materials such as recycle and biobased,
 - re-stabilization of recycle, compatibilizers, special needs in stabilization and processing of biobased materials
- General New developments & Innovation: in Color concentrates and pigmentation; Processing additives; Durability improvers; Property enhancement

Exterior Trim and Structural Applications Session

Co-Chairs

- Charlie Yang, LyondellBasell
- Mark Pilette, Magna Exteriors
- Andrew Sanders, Borealis

Session Scope

- Design Trends impacting the Car of the Future
- Design Influences on Material selection for Exteriors
- Future structural needs for Polypropylene Compounds for Electric (EV) and Autonomous Vehicles (AV) applications
- Next Generation Materials