3D Printed Polymers and Polymer Matrix Composites

Polymers form a significant portion of additively manufactured printed products. Challenges with implementing polymer-based additive manufacturing include material and process standardization, unique test standards, lack of documented design, analysis, qualification and certification methods, and a limited trained workforce.

This symposium covers the following aspects related to polymer additive manufacturing for part production:

- Advances in polymer materials for additive manufacturing
- Polymer additive manufacturing technology
- Material property characterization and test methods for feedstock materials and additively manufactured parts
- Process influence in physical, chemical, and mechanical characteristics of additively manufactured parts
- Design and analysis methods
- Characterization of defect formation and effects of defects
- Certification methods including product, design, production, or airworthiness
- Installation qualification (IQ), operational qualification (OQ), and performance qualification (PQ)
- Workforce training, education, and operator certification