PU 204: Physical Testing of Polyurethane Foam

Course Description:

This course provides a thorough grounding in the physical testing of polyurethane foam, equipping participants with the knowledge to select, apply, and interpret test methods with confidence. The course begins by clarifying key testing concepts before moving through a comprehensive survey of test methods for rigid foam, flexible foam, sound and vibration, and thermal analysis. The concluding section addresses how to use and communicate test data effectively, covering result variability, specification writing, and industry standards.

Introduction

Testing Jargon

- Temperature/Humidity Effects in Manufacturing and Testing
- Anisotropicity in Foam
- Modulus and Stress/Strain Curve
- Strain Rate/Temperature Effects

Individual Test Methods

- Rigid Foam Methods
- Flexible Foam Methods
- Miscellaneous Methods
- Thermal Analysis Methods

Conclusion

- Using and Understanding the Data
- Test Result Variability
- Writing Specifications/Data Sheets
- Types of Standards