

PU 103: Introduction to Bio-Based Raw Materials

Course Description:

This course introduces bio-based raw materials used in polyurethane production, building on key chemistry fundamentals and traditional materials such as polyols and isocyanates. Participants will explore bio-based alternatives, their performance, and their role in advancing sustainability goals. The course also covers relevant certifications and standards, along with real-world applications demonstrating how bio-based materials are being used across the industry.

Introduction

Relevant Fundamentals of Polyurethane Chemistry

Raw Materials for Polyurethanes

- Polyols
- Isocyanates

Bio-Based Raw Materials for Polyurethanes

- Polyols
- Isocyanates

Sustainability of Bio-Based Raw Materials

Product Sustainability Certifications and Standards

Applications and Examples

Summary and Questions