

PU 107: Introduction to Surfactants, Catalysts and Additives

Course Description:

This course provides an in-depth introduction to three essential categories of polyurethane formulation components: catalysts, surfactants, and additives. Participants will learn how catalysts influence reaction kinetics and selectivity, how surfactants function and are tailored for polyurethane systems, and how a wide range of additives — including colorants, pigments, functional additives, and processing aids — are used to achieve desired performance and appearance. Topics such as color measurement, metamerism, and polyurethane yellowing round out the course, making it highly relevant for formulators and product development professionals across polyurethane markets.

Catalysts

- What are Catalysts?
- Catalyst Impact on Polyurethane Reaction
- Catalyst Selectivity
- Specialized Catalysts

Surfactants

- What are Surfactants?
- How and Why Surfactants Work?
- Surfactant Chemistry
- Surfactants Tailored for Polyurethane Applications

Additives

- Business Units
- Polyurethane Applications
- Markets Served
- The Liquid Colors and Additives
 - The Carrier
 - The Pigments
 - Functional Additives
- Carbon Black Liquid Dispersions
- How We Measure Color?
- Metamerism
- What's Around Colour?
- Processing and Performance Additives
- How does Polyurethane Yellow?
- Processing and Performance Additives