

RIGID POLYURETHANES TRAINING WEEK

Europe 2020

A TechnoBiz Event

23-26 November 2020

Bologna, Italy

Supported by

POLYURETHANE
Foams • Molding • Adhesives • Coatings

Date	Training Course
23 Nov 20	Rigid Polyurethanes - Chemistry, Raw Materials and Processing
24 Nov 20	Improving Fire Resistance of Rigid Polyurethanes
25 Nov 20	Chemistry and Manufacturing of Polyisocyanurate (PIR) Thermal Insulation Products
26 Nov 20	Application of FT-IR and FT-NIR Techniques for Industrial R&D and QC of Polyurethanes

Rigid Polyurethanes - Chemistry, Raw Materials and Processing

23 November 2020 / 9am - 5pm
Instructor: Dr. Grazyna Mitchener

- Basic Chemistry for Rigid Polyurethanes
- Types and Applications of Rigid Polyurethanes
- Types and Properties of Raw Materials for Rigid Polyurethanes
- How to Formulate Rigid Polyurethane to achieve Required Properties
- Processing Methods and Impact of Processing Parameters on the Quality of the Products and Production Efficiency
- Recycling of Rigid Polyurethanes

Improving Fire Resistance of Rigid Polyurethanes

24 November 2020 / 9am - 5pm
Instructor: Dr. Grazyna Mitchener

- Importance and Applications of Rigid Polyurethanes with Low Flammability
- The Nature of Fire and Theoretical Ways to Prevent It
- Fire Resistance Testing and Standards applicable to Rigid Polyurethanes
- Fire Retardant Additives: Types, Properties and Applications
- Principles of Developing PU formulations with Reduced Flammability
- Designing PU products with High Fire Resistance
- Novel Materials and Trends in Development of Rigid Polyurethanes Safer in Fire Conditions
- Learning from Case studies like e.g. the Fire of Grenfell Tower in London

Training Courses for Engineers, Chemists and Technical Managers in Rigid PU Industries

Chemistry and Manufacturing of Polyisocyanurate (PIR) Thermal Insulation Products

25 November 2020 / 9am - 5pm
Instructor: Dr. Grazyna Mitchener

- Polyisocyanurate Chemistry
- Properties of PIR Products
- Differences between PUR and PIR technologies
- Specifics of Raw Materials for PIR formulations.
- Principles of PIR Formulating.
- Specifics of Manufacturing Equipment for PIR Production

Application of FT-IR and FT-NIR Techniques for Industrial R&D and QC of Polyurethanes.

25 November 2020 / 9am - 5pm
Instructor: Dr. Grazyna Mitchener

- The Theory behind the FT-IR/NIR Spectroscopy Techniques, What is Measured and Why.
- Available Industrial Grade Equipment: Types, Capabilities and Prices.
- How to Perform the Tests to achieve Reliable Results.
- How to Interpret the Readings and relate them to the Chemical Structure of the Material and its Properties.
- Application of FT-IR in Industrial R&D:
 - Benchmarking Chemical Composition of Different PU Raw materials, Intermediates and Products;
 - Investigating Impact of Chemical Structure of Raw Materials on polyurethane's properties,
 - Monitoring Kinetics and Selectivity of Chemical Reactions in PU's,
 - Selecting Substitutes for Chemicals
- Application of the Techniques for Industrial Quality Control of Raw Materials, Polyurethane Products, Investigations of Product Failures or Customer Complaints.
- Application of Both Techniques
 - On-line and Real-time Monitoring of Production Parameters,
 - Improving Manufacturing Efficiency
 - Reducing Production Waste or Easing Troubleshooting.
- Case Studies of Applying the Techniques to Polyurethane Raw Materials, Intermediates and different types of Polyurethanes: Rigid, Flexible, Coatings, CASE, etc.

Instructor: Dr. Grazyna Mitchener



Dr. Grazyna Mitchener is the director and principal consultant in Polychemtech Ltd. – a technical and business consultancy specialising in innovative polyurethane technologies and other high performance polymeric products. From 1996 to 2008 she worked for Celotex in UK, developing first in Europe zero-ODP PIR rigid thermal insulation products. For the first ten years of her career she was an academic researcher and lecturer and worked on polymers with high heat and fire resistance. She gained her Ph.D. in Polymer Chemistry and Technology in 1992. She is the author of 8 patents and over 60 scientific papers, conference presentations and training workshops. For her contribution to the thermal insulation industry she was presented with the “Global Insulation Personality of 2014” award.

REGISTRATION FEE

- 650 US\$/Person for Each Course
- 1,800 US\$/Person for all Four Courses

Remarks:

- Registration fee includes training documentation, lunch & refreshments
- 10% discount on registrations received before 31 July 2020
- Seating Capacity is limited.

VENUE

This training week will be held in a 4-Star Hotel in Bologna, Italy. Detailed information will be sent to all registered participants.

HOW TO REGISTER? Please register online at

www.polyurethane-industry.org/training.html

CONTACT ADDRESS

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TechnoBiz Exhibitions for Polyurethane Industries

2020 - 2022

PU Tech
ASIA 2020
FOAM EXPO

3-4 JUNE 2020
Kuala Lumpur, Malaysia

PU Tech
AFRICA 2020
FOAM EXPO

28-29 OCTOBER 2020
Lagos, Nigeria

PU Tech
ARAB 2021
FOAM EXPO

13-14 OCTOBER 2021
Sharjah, UAE

PU Tech
ASIA 2021
FOAM EXPO

2-3 JUNE 2021
Jakarta, Indonesia

PU Tech
ASIA 2022
FOAM EXPO

JUNE 2022
Bangkok, Thailand

