



Continuing education - short module - Rheology

KEY WORDS

RHEOLOGY,
VISCOSITY,
MELT FLOW INDEX

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MAIN CONTENTS

Viscosity and rheology concepts.
Viscoelastic properties of polymers.
Capillary rheometry.
Dynamic rheometry.
Flow index rheometry.


COURSE DYNAMICS

The course offers a comprehensive introduction to polymer rheology, combining theoretical fundamentals with extensive practical training. It begins with laminar flow, shear rate, shear viscosity, and their application to polymer flows, along with an overview of key characterization equipment. The program then addresses viscoelastic phenomena, including modeling, measurement techniques, creep behavior, and viscoelastic flows of molten polymers.

Participants study capillary rheometry in detail, covering measurement principles, advantages and limitations, applications, suppliers, and links to extrusion, followed by practical operation, setup, testing with fluid and viscous materials, and validation through supervised testing. The course also includes dynamic rheometry, presenting instrument components, consumables, operating parameters (speed, gap), and applied corrections, with hands-on sessions focusing on safety, parameter setup, and testing of fluid and viscoelastic materials.

LANGUAGE

French

Topic area Rheology 	Format Lecture 30hs 
Level Short course 	Training certificate 