

International Academy of Rheology

PROGRAM DAY 1 | MONDAY, NOVEMBER 04, 2019

09:00	Introduction and Viscosity at Anton Paar - ViscoQC - RheolabQC
09:40	Short 5 minute break
09:45	Basics of Rheology Viscose materials - Basic viscosity measurements, rotational tests - Measuring systems (Cylinder, Cone/Plate, Plate/Plate, special measuring systems) - Definition of shear rate, shear stress, viscosity - Flow behavior (ideally viscous, shear- thinning, shear- thickening)
11:15	Coffee break
11:30	HandsOn using the MCR - Flow curves - Discussion of flow behavior
12:15	Lunch time
13:15	Basics of Rheology Viscose materials - Yield point - Additives in rheology - Time depended behavior (Structure recovery, gelation, curing) - Temperature depended behavior
14:15	Coffee break
14:30	HandsOn using the MCR - Yield point determination - Structure recovery - Further measurements - Discussion
16:00	End of first day

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PROGRAM DAY 2 | TUESDAY, NOVEMBER 05, 2019

09:00	Basics of Rheology Viscoelastic materials - Definition of shear deformation, shear modulus - Yield point using tangent method - Oscillatory tests: - Definition of storage modulus, loss modulus, damping factor
10:00	Coffee break
10:15	Basic of Rheology Viscoelastic materials - Amplitude sweeps - Linear viscoelastic range, structure behaviour, crossover point
11:00	HandsOn using the MCR - Amplitude sweeps - (Yield point)
11:30	Short 5 minute break
11:35	Basics of Rheology Viscoelastic materials - Frequency Sweeps - Molar mass, dispersions: Long term stability - Time depended behavior (Structure recovery, gelation, curing)
12:30	Lunch
13:30	HandsOn using the MCR - Frequency sweeps - Time depended behavior
14:15	Basics of Rheology Viscoelastic materials - Temperature measurements: Glass transition, melting and crystallisation, curing and gelation, DMTA with bars, films and foils
14:45	Coffee break
15:00	HandsOn using the MCR - Further frequency sweeps - Curing reactions - Introduction of DMTA measuring systems
16:30	End of the Seminar