

Unlocking Semi-Solid Materials

Advanced Characterization Techniques & Applications



Thursday, March 5, 2026

09:00 a.m.	Welcome & Introduction <ul style="list-style-type: none">▪ Overview of seminar objectives▪ Fundamentals of semi-solids and viscous materials
	Fundamentals of Semi-Solids and Viscous Materials <ul style="list-style-type: none">▪ Key parameters: density, viscosity, rheology and consistency▪ Impact on flowability, packing, and process performance
	Rheological Characterization of Semi-Solids <ul style="list-style-type: none">▪ Principles of rotational and oscillatory rheology▪ Practical examples linking rheology to processing and application conditions
10:30 a.m.	Coffee Break
10:50 a.m.	Gas Pycnometry for Density <ul style="list-style-type: none">▪ Principles of gas pycnometry▪ Case studies: impact of density on formulation stability and performance
	Penetrometry for Consistency and Texture <ul style="list-style-type: none">▪ Principles of penetrometer testing▪ Measuring firmness, spreadability, and structural strength
12:30 p.m.	Lunch
02:00 p.m.	Hands-On Experiments in 3 Groups: <ol style="list-style-type: none">1. Gas Pycnometry – Density Measurement2. Rheometer – Flow & Viscoelastic Properties3. Penetrometer – Consistency & Texture
04:00 p.m.	Coffee Break
04:15 p.m.	Hands-On Experiments: Group Debrief & Discussion
	Closing Remarks <ul style="list-style-type: none">▪ Summarize key takeaways▪ Feedback session
05:00 p.m.	End of the Seminar