

CHARACTERIZATION SERVICES

AVEKA provides analytical testing services for customers on a one-time or ongoing basis using a variety of characterization techniques. Our Chemists will work closely with you to conduct routine and advanced material characterization testing for a variety of industries including chemical, food, personal care, and many more. Choose AVEKA when you need precise and reliable results with a quick turnaround.



PARTICLE SIZE ANALYSIS

- Particles 3nm to 2+ mm
- Particle Size Distribution (PSD)
- Sonic Sieve
- Ro-Tap
- Coulter Counter

IMAGING (PARTICLE SHAPE ANALYSES)

- Optical Microscopy
- Scanning Electron Microscopy (SEM)
- SEM with EDS (Elemental Mapping)
- Dynamic Imaging Analysis

AREA AND DENSITY

- BET Surface Area

FORMULATION ANALYSIS

- Thermogravimetric Analysis (TGA)
- Visible Spectrophotometer
- Differential Scanning Calorimetry (DSC)
- Conductivity and pH
- High Performance Liquid Chromatography (HPLC)

ADDITIONAL ANALYSIS

- Zeta Potential Analysis
- Fluid & Powder Rheological Analysis
- Moisture & Solids Analysis
- Karl Fisher Titration
- FT4 Powder Rheometer
- Energy-Dispersive X-ray Spectroscopy for Elemental ID (EDS)

HIGHLIGHTS

- FULL SERVICE LABORATORY
- DIVERSE CAPABILITIES
- COMPETITIVE PRICING
- FAST SAMPLE TURNAROUND
- PRECISE AND RELIABLE
- ISO 9001 CERTIFIED



THERMOGRAVIMETRIC ANALYSIS

- How much silane was added to our material?
- Can I make the surface of my active hydrophobic or more compatible with a resin?
- Do we need to protect our material from oxygen or heat?
- What is the fraction of oil to shell material? Is oil release temperature dependent?

FT4 POWDER RHEOMETER

- Will my powder flow out of the hopper?
- Has the flow of my powder changed after surface modification?

HORIBA CAMSIZER

- Are my particles multi-shaped?
- Are my particles spherical?

PARTICLE SIZE DISTRIBUTION

- What is the size of our product?
- What is the particle size and morphology exist after milling?

RHEOLOGICAL ANALYSIS

- Does the viscosity of the ceramic slurry meet specifications?
- Does the powder behave properly when gelled?
- Can I make the surface of my active hydrophobic or more compatible with a resin? (with High Shear Mixing)

DIFFERENTIAL SCANNING CALORIMETRY

- Are there issues with temperature changes post production?
- How does the gel behave with temperature change, cooking?

KARL FISCHER TITRATION

- Is our final moisture content within the specifications?



SCANNING ELECTRON MICROSCOPY

- What particle size and morphology exist after milling?
- What elements are present in the powder? Can any foreign material be identified? (followed by EDS Elemental Mapping)
- What does the powder look like dry vs. gelled? (with Optical)
- Is the oil well encapsulated? Are the capsules cracked?

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

- Is there a variation between batches or contamination?

ZETA POTENTIAL

- Is our emulsion stable?

MOISTURE AND SOLIDS ANALYSIS

- Is the product dry enough?

THE AVEKA ADVANTAGE

- Development of unique test methods to be highly specific to customers' needs
- Fast 2-3 day turnaround
- Ever-expanding technical capability