

AVEKA

**SPECIALISTS IN PARTICLE TECHNOLOGY
TOLL MANUFACTURING**



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 & reliable results with a quick turnaround.

PARTICLE SIZE ANALYSIS

- Particles 3 nm to 2+ mm
- Particle size distribution (PSD)
- Sonic sieve
- Ro-tap
- Coulter counter

IMAGING (PARTICLE SHAPE ANALYSES)

- Optical microscopy
- Scanning electron microscopy (SEM)
- Dynamic imaging analysis

AREA AND DENSITY

- BET surface area

FORMULATION ANALYSES

- Thermogravimetric analysis (TGA)
- Spectrophotometer
- Differential scanning calorimetry (DSC)
- Conductivity and pH
- High performance liquid chromatography (HPLC)

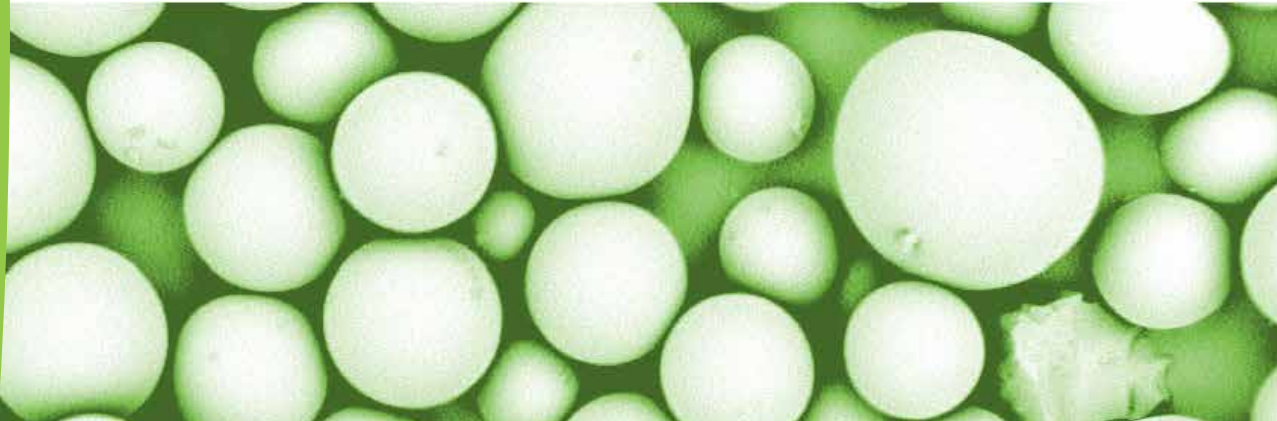
ADDITIONAL ANALYSES

- Zeta potential analysis
- Fluid & powder rheological analysis
- Moisture and solids analysis
- Karl Fischer Titration
- FT4 Powder Rheometer

HIGHLIGHTS

- FULL SERVICE LABORATORY
- DIVERSE CAPABILITIES
- COMPETITIVE PRICES
- FAST SAMPLE TURNAROUND
- PRECISE AND RELIABLE
- ISO 9001:2015 CERTIFIED





SURFACE COAT POWDER WITH SILANE

How much silane was added to our material?

- *Thermogravimetric analysis*

Is our final moisture content within the specifications?

- *Karl Fischer Titration*

Are my particles multi-shaped?

- *Horiba Camsizer, Hopper Flow*

Will my powder flow out of the hopper?

- *FT4 Powder Rheometer*

Has the flow of my powder changed after surface modifications?

- *FT4 Powder Rheometer*

CERAMIC PARTICLE SIZE REDUCTION

What particle size and morphology exist after milling?

- *Particle size distribution, scanning electron microscopy*

Does the viscosity of the ceramic slurry meet specifications?

- *Rheological Analysis*

Are my particles multi-shaped?

- *Horiba Camsizer*

Will my powder flow out of the hopper?

- *FT4 Powder Rheometer*

FORMULATION OF NUTRACEUTICAL EMULSION FOR SPRAY DRYING

Is there variation between batches or contamination?

- *High performance liquid chromatography*

Is our emulsion stable?

- *Zeta Potential*

Are there issues with temperature changes post-production?

- *Differential scanning calorimetry*

Do we need to protect our material from oxygen and/or heat?

- *Thermogravimetric analysis*

Q&A

DRY, POWDERED GELLING AGENT

What does the powder look like dry vs. gelled?

- *Optical and scanning electron microscopy*

Does the powder behave properly when gelled?

- *Rheological analysis*

How does the gel behave with temperature change, cooking?

- *Differential scanning calorimetry*

ENCAPSULATED FRAGRANCE OILS

What is the size of our product?

- *Particle size distribution*

Is the product dry enough?

- *Moisture and solids analysis*

Is the oil well encapsulated? Are the capsules cracked?

- *Scanning electron microscopy*

What is the fraction of oil to shell material? Is oil release temperature dependent?

- *Thermogravimetric analysis*

Are my particles spherical?

- *Horiba Camsizer*

THE AVEKA ADVANTAGE

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