

TETRAMER[®] ANALYTICAL SERVICES

Having a problem with a material? Whether you are trying to understand a failure mechanism in an adhesive, why a coating is blistering, or how to better characterize a material for patent protection, we can help.

We provide custom, investigative analytical support through root cause analyses, deformation studies, process characterization, and quality evaluations. Our onsite analytical laboratory includes an in-house support network of PhD and MS Analytical and Organic Chemists and Material Scientists. Our background in Materials R&D and Process Research provides a unique capability for analysis of materials throughout the value chain.

INVESTIGATIVE ANALYSIS

We provide in-depth characterization of materials, products, and processing. In addition to a broad range of analytical instrumentation and characterization equipment, our team has a deep understanding of synthetic organic chemistry, ceramic and chemical engineering, optical materials, paints and coatings, adhesives, advanced membrane technologies, materials science, solid state physics, and more that enables the study of unique materials challenges.



WE BRING CLARITY TO YOUR COMPLEX MATERIALS AND PROCESSING CHALLENGES.

Root Cause Analysis

Deformation Study

Process Characterization

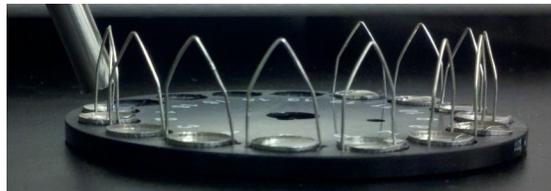
Quality Evaluation



COOPERATIVE APPROACH

Our team works to form interactive relationships with customers to develop a complete understanding of their technical challenges. This cooperative approach enables a thorough identification of factors affecting customers' materials and helps us to develop effective strategies for improving the reliability and profitability of their products.

Materials often require innovative approaches to identify and characterize technical issues. Tetramer can develop outside-the-box analytical methods to provide more complete and meaningful data sets for problem solving.



Tetramer Technologies

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CUSTOMER FEEDBACK

"I have to say you [Tetramer] are more responsive than any other "lab"/research organization that I have dealt with; that is highly appreciated."

Senior Materials Engineer | Tier 1 DOD Supplier

"There are many companies that have technical test capabilities and expensive machines but can't follow through to help educate a customer through a transparent exchange of ideas. I think this really sets your team apart from other companies we've worked with. I've found the recent project interesting, engaging, and quite honestly, a fun learning experience."

John Earl | Director of Engineering | Techtronic Industries 

FACILITIES & CAPABILITIES

Tetramer's facilities, located in Anderson County near Clemson, SC, include more than 7000 ft² of laboratory space furnished with 20 chemical hoods, fully-equipped reactors, a Class 1000 clean room, environmental test chambers, as well as established access to additional capabilities at nearby Clemson University.

Tetramer's comprehensive in-house analytical laboratory is staffed by full-time analytical chemists. Our depth of instrumentation enables high through-put of analytical testing. This results in quick turn-around times for analyses and the ability to provide customers with rapid feedback on time-sensitive projects.

CHEMICAL/PHYSICAL CHARACTERIZATION

- Chromatography (HPLC, GPC, GC)
- Rheology
- Universal Mechanical Testing (Instron)
- Particle Size Analysis (DLS)
- Gas Permeation Testing
- X-Ray Diffraction



THERMOMECHANICAL ANALYSIS

- Thermogravimetric Analysis
- Differential Scanning Calorimetry
- Thermomechanical Analysis
- Dynamic Mechanical Analysis

OPTICAL CHARACTERIZATION

- Vibrational Spectroscopy (UV-Vis, FTIR)
- Fluorescence Spectroscopy
- Abbe Refractometry

METHOD DEVELOPMENT

- Polymer Characterization
- Accelerated Aging
- Deformulation

MICROSCOPY

- Optical
- Cross-Polarized
- SEM / TEM / EDS / FIB / XPS

