

# PCL - Alpharetta

## Welcome to the Alpharetta Polymer Characterization Laboratories

Site Location: 4500 McGinnis Ferry Road,  
Alpharetta, Georgia United States

To find out more about the PCL capabilities  
please contact:

**Elena Krumenaker** - Materials Technology  
Manager Polymer Characterization Laboratories  
& Customer Care PCL

**Jeffrey Hernandez**- Analytical Chemistry Team  
Lead

**Crystal Bustion** - Customer Care PCL Outside  
Testing Coordinator

Email Customer Care Contact: [alph-customer-care@syensqo.com](mailto:alph-customer-care@syensqo.com)



Alpharetta Polymer Characterization  
Laboratories Primary Contacts

Suggestions and Feedback

## PCL Customer Feedback Form



The Alpharetta Polymer Characterization Laboratories (PCL) Group supports SCo Specialty Polymers. The customer base includes product & process development, manufacturing and compounding, sales & marketing, technical service and application development. The PCL Group scientists and technicians solve problems by working to recognize and understand material systems and deliver the results. PCL contributes to the GBU business growth, sustainability and safety by providing high quality laboratory test results, new method development, dedicated customer service and satisfaction while promoting safety and wellbeing, developing people, encouraging teamwork, dialogue and respect for one another.



## ***Experienced Materials Characterization and Analytical Excellence***

***A World Class Materials Testing Laboratories for Internal and External Customers***

***Where Experience and Capability Produce Precise and Accurate Results***

***ISO 17025 Accredited Testing Laboratory***



Specialty Polymers is world leader in the production of high-performance materials. Researchers deliver innovative and sustainable solutions for many different markets: Automotive and Aerospace, Industrial and Environment, Consumer and Construction, Electrical and Electronics, Healthcare, Batteries. The **Polymer Characterization Laboratories (PCL)** department of Alpharetta has a key role collaborating with R&I, Manufacturing, Regulatory and Commercial functions for the characterization and testing of all the GBU materials. Starting from a new molecule in the lab to the industrial plant, then to the final application: really a privileged point of view! Here you will find information about our teams, competencies and capabilities to better address your requests.



## **Alpharetta Polymer Characterization Laboratories Testing Capabilities**



### **Mission**

Our Purpose is to build a **strong partnership** with **our customers** assuring a competent and timely support and anticipating needs by providing **innovative analytical approaches**. We also are active in our local community giving a helping hand when needed.

### **Who We Are**

Polymer Characterization Laboratories (PCL) are fully integrated in the **Syngene Analytical Network**



Besides international ASTM/ISO references, proprietary methods are developed and applied for structural characterization and testing of the whole GBU product portfolio (Fluoropolymers, Aromatics, Composites).

Standard and complex analysis are provided with a multi-techniques approach aimed to investigate material compositions, support research development and understand the performance of materials in their final applications.

### Quality Standard Operating Procedures and Laboratory Test Methods

Polymer Characterization Laboratories (PCL) Quality documents are stored on the Grand Avenue database.

## Polymer Characterization Laboratories: Testing Available

### Customer Care

PCL Manager & Customer Care Supervisor: [Elena Krumenaker](#)

#### Customer Care

- CTD Support
- Outside Testing

### Electric & Dielectrical Lab

Lab Contact: [Ty Walker](#)

- Dielectric Constant & Dissipation Factor (Dk/Df)
- EMI Shielding Effectiveness
- Dielectric Strength (Breakdown Voltage)
- Comparative Tracking Index (CTI)
- Surface & Volume Resistivity

### Molecular Science & Spectroscopy Lab

Lab Supervisor: [Jeffrey Hernandez](#)

### Microscopy Lab

Lab Contact: [Sujithra Chandrasekaran](#)

#### Microscopy Lab

- Imaging and Surface Characterization
- Elemental Analysis
- Sample preparation

#### Customer Care

- CTD Support
- Outside Testing

### Physical Mechanical Lab

Lab Supervisor: [Colter Smith](#)

- Full range testing lab for physical mechanical properties of materials
- Impact, HDT/Vicat, Density/Specific Gravity, Flammability, Hardness

### Liquid Chromatography - Mass Spectrometry (LC/MS) Lab

Lab Supervisor: [Taylor Domenick-Jones](#)

- Liquid Chromatography (LC)
- Mass Spectrometry (MS)
- Ion Mobility Spectrometry (IMS)

### Quality Control (QC) Lab

Lab Coordinator: [Jacob McClain](#)

- Ash, Color and Moisture Analysis
- Particle and Pellet Size Analysis

<ul style="list-style-type: none"> <li>Elemental Analysis by ICP-MS, ICP-OES, XRF, Halogen Analyzer</li> </ul>
<ul style="list-style-type: none"> <li>Material identification by FTIR and NMR</li> </ul>
<ul style="list-style-type: none"> <li>Filler Content (Glass, Carbon Fibers, Other Fillers)</li> </ul>
<ul style="list-style-type: none"> <li>Radiography: Voids, Metal Contamination</li> </ul>
<ul style="list-style-type: none"> <li>NMR for Structure, Polymer End Groups, Contamination, and Quantification</li> </ul>
<ul style="list-style-type: none"> <li>Titrations for Acids, Bases, and Polymer End Groups</li> </ul>
<ul style="list-style-type: none"> <li>Degradation by FTIR, ICP, and End Group Analysis</li> </ul>
<ul style="list-style-type: none"> <li>Contamination (Organic and Inorganic)</li> </ul>

### Separation Science Lab

Lab Supervisor: **Scott Sudbury**

<ul style="list-style-type: none"> <li>Purity Analysis and Trace Contamination</li> </ul>
<ul style="list-style-type: none"> <li>Molecular Weight Distribution</li> </ul>
<ul style="list-style-type: none"> <li>Unknown Volatiles &amp; Decomposition</li> </ul>
<ul style="list-style-type: none"> <li>Ion Quantification</li> </ul>
<ul style="list-style-type: none"> <li>Purity Analysis and Trace Contamination</li> </ul>
<ul style="list-style-type: none"> <li>Unknown Volatiles &amp; Decomposition</li> </ul>

<ul style="list-style-type: none"> <li>Water Absorption, Tensile Fatigue, Shear Stress, Lap Shear, Mold Shrinkage, Shear Punch, Adhesive /Peel, Taber Abrasion, Filament Tensile, Fiber Tensile, Pin-Adhesion</li> </ul>
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### Thermal & Rheology, IV Lab

Lab Supervisor: **Todd Murphy**

<ul style="list-style-type: none"> <li>Thermal: Differential Scanning Calorimetry, Thermogravimetric Analysis, Thermomechanical Analysis, Dynamic Mechanical Analysis, Thermal Conductivity</li> </ul>
<ul style="list-style-type: none"> <li>Rheology wide range of techniques for measuring flow behavior of materials: Melt Flow Indexer, Capillary Rheology, Solution Rheology, Dilute Solution Rheology</li> </ul>



28 Feb 2023

 Quarterly Update

**Colleagues Update: 2025**

- New QC Coordinator Jacob McClain
- Ivan Akimov moved to Physical Mechanical Lab
- Quinn Greaves is now 50% Customer Care & 50% Physical Mechanical Lab
- Anthony Skelton II has joined the Thermal & Rheology Lab

Quality Testing & Results, Customer Care and Safety are a priority for the PCL Group.