

# PCL Physical Mechanical Lab

## Mission

In the PCL Physical Mechanical testing labs, we specialize in the physical and mechanical testing of aromatic specialty polymers and thermoplastic composites. Physical mechanical testing of polymers is a vital part of the product development and production process. Our capabilities span a wide spectrum, encompassing routine and standardized testing procedures as well as the evaluation of intricate components and specialized or non-routine testing. Our primary focus is to provide support to the Specialty Polymer Research and Development (R&D) teams, Customer Technical Development (CTD) teams, as well as the manufacturing and quality control groups.

We take great pride in being an ISO 17025 accredited laboratory, adhering to strict quality requirements and documentation practices that pertain to our accredited scope of testing. Our accreditation scope includes the following tests:

- Tensile - ISO 527, ASTM D638, ASTM D1708
- Flex - ISO 178, ASTM D790
- Impact - ISO 179, ISO 180, ASTM D256
- Multi-axial impact - ASTM D3763
- HDT - ISO 75, ASTM D648
- Specific gravity/density - ISO 1183-1, ASTM D792
- Mold shrinkage - ISO 294-4, ASTM D955
- Conditioning of plastics - ASTM D618

## Techniques





### Specialty Polymers

- [Tensile, Flex, Compression](#)
- [Impact - Izod, Charpy, Multiaxial Impact](#)
- [HDT/Vicat](#)
- [Hardness, Density/Specific Gravity](#)
- [Mold Shrinkage](#)
- [Flammability](#)
- [Fatigue - Tensile](#)
- [Abrasion - Taber](#)
- [Shear Stress, Lap Shear, Shear Punch](#)

### Thermoplastic Composites (TPC)

- Tension
- Flexure
- Short beam shear (SBS)
- In-plane shear
- Compression
- GIC, GIIC

## Team

Contact		Title	Office/Lab
	Physical Mechanical ISO 17025 accreditation	Physical Mechanical Lab Supervisor Research Scientist	Office E1046 Lab E1002
	<a href="#">Chris Batson</a> Physical Mechanical TPC testing	Associate Research Scientist	E1010
	<a href="#">Ivan Akimov</a> Physical Mechanical	Analyst	Lab E1002
	<a href="#">Chianne Alford</a> Physical Mechanical	Analyst	E1002

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