



Innovative Solutions for Research, Development, and Testing.

> The Independent Testing
> Laboratory at Saginaw Valley State University has collaborated with hundreds of companies in Michigan, ranging from Fortune 500 corporations to privately owned businesses and startups.

Housed within SVSU's College of Science, Engineering and Technology at SVSU, the ITL provides lab space, precision equipment, and expert support to help regional business and industry:

- Gain data and insight necessary for making confident design decisions.
- Research and develop innovative design solutions.
- Solve complex development, and manufacturing problems.
- Bring new products to market in less time.

Reliable information, cost-effective services, and reasonable turnaround time

make the Independent Testing Laboratory at SVSU a valuable research and development partner for the rich diversity of Michigan business and industry.

ITL offers a range of testing services, including:

- Mechanical Testing
- Chemical Testing
- Environmental Testing
- Microscopy

"Using the SVSU Independent Testing Lab cut a year off the development process."

Rick Nash Product Line Executive & Chief Engineer for Steering Columns & Shafts **Nexteer Automotive**

www.svsu.edu/itl/

Questions? Please contact:

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ITL Offers a Range of Testing Services, Including:



Mechanical Testing

- MTS Alliance RT/100 20,000lb capacity
- MTS 81 0 servohydraulic 20,000lb capacity
- MTS 318 servohydraulic 11 0,000lb capacity
- Tension, compression & flexural grips & fixtures
- Elastomers, plastics, composites, metals
- Fracture: Compact Tension
- Hardness; Brinell, Rockwell & Micro hardness
- Cyclic Fatigue
- Izod Impact
- Viscosity



Thermal Analysis

- Differential Scanning Calorimetry
- Thermogravimetric Analysis
- Heat Deflection; DTUL & VICAT testing



Microscopy

- JEOL 1400 Transmission Electron Microscope
- JEOL 5400 Scanning Electron Microscope
- Energy Dispersive Spectroscopy
- Optical, Phase



Analytical Chemistry

- Electron Spin Resonance
- Fourier Transform Infrared Spectroscopy
- UV & Visible light
- Gas Chromatography (GC, GC-MS)
- Liquid Chromatography (HPLC, LC-MS)
- Nuclear Magnetic Resonance Spectroscopy
- Raman Spectroscopy
- Trace Metals (MP-AES, AA)
- X-ray Fluorescence
- X-ray Powder Diffraction



Sample Preparation

- Centrifuges
- Ovens, autoclave, high temperature, incubators
- Metallography grinders, polishers & microscopes



ITL Machine Shop Equipment

- Haas Mini Mill with Probing
- Three vertical mills and three lathes
- · Horizontal and vertical band-saw
- MIG and TIG welding capability



Industry 4.0

- Form 3 Stereolithography 3D Printer
- Raise3D Fused Filament Fabrication (FFF) Printer
- · Light Guide Vision System
- UR10e Collaborative Industrial Robot

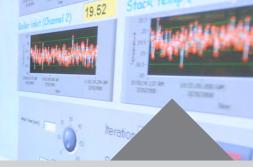




Mechanical Testing







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