

DatapointLabs Invests in New Testing Capabilities, Expands Market Reach

Acquisition of Equipment Increases Capacity, Adds Testing Capabilities

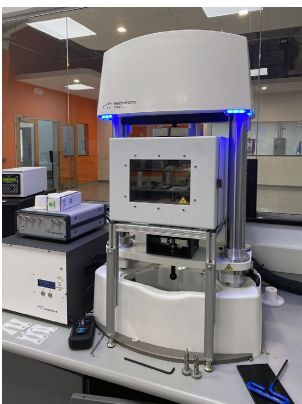
When DatapointLabs relocated in May 2021, future expansion of both laboratory capacity and range of services was a prime motivator (see [Datapoint Vol. 27.2](#)). In the last year, the company has invested over \$750,000 to upgrade and add new [laboratory instruments](#) for material testing as well sample preparation services. New machines that have recently come into service include:

TA Instruments DTC 300



The DTC 300 is a research grade instrument ideal for direct measurement of thermal conductivity of a wide range of materials from insulation materials, to heat sink materials, and composites. It typically is used for measurement of solid samples for applications in automotive, aerospace, construction, and many other industries. The addition of the DTC 300 represents a significant upgrade to our thermal testing capabilities.

TA Instruments DMA 3200



The DMA 3200 brings together dynamic mechanical analysis (DMA) and fatigue testing capabilities in one high-force (up to 500N) versatile machine. It handles not only complex DMA time-temperature superpositioning (TTS) analysis, but also axial fatigue testing across a wide range of material types.

The DMA 3200's DMA functions can be used to analyze master curves through advanced TTS, peak analysis, onset analysis, and relaxation spectrum for various solid materials ranging from foams to composites. DMA master curves can be used to determine a material's behavior (stiffness, damping, etc.) over a wide range of frequencies and time scales.

Due to the larger load capacity of the DMA 3200, it can be used for conducting fatigue tests on materials at various temperatures, modes, and frequencies. The evaluation of the fatigue life of material is crucial when designing products that experience repeated loading.

The addition of the DMA 3200 expands DatapointLabs' DMA capabilities to better suit the biomedical and consumer electronics communities, in particular.

ITAR Registration

DatapointLabs is proud to announce its recent completion of International Traffic in Arms Regulations (ITAR) registration with the US Department of State Defense Directorate of Trade Controls (DDTC). ITAR is a program directed by the DDTC regulating the manufacture, export and import of US military and defense-related equipment, services and information. Companies receiving ITAR registration must implement and adhere to significant procedures and controls to protect technologies with the goal of safeguarding US national security. The completion of ITAR registration enables DatapointLabs to offer materials testing and characterization services to those customers who may be engaged in defense-related manufacturing.

The ITAR registration follows on the achievement of Nadcap[®] accreditation for Non Metallic Materials Testing at the end of 2021 (see [Datapoint Vol. 28.1](#)). The Nadcap audit criteria are developed by experts from the aerospace and defense industry, and Nadcap[®] is administered by the not-for-profit Performance Review Institute[®].

Focus on Composites Testing

In response to the intensifying trend toward lightweighting and innovative applications of composite materials, DatapointLabs has added new mechanical properties tests specifically for composite materials. Recent additions to the [Test Catalog](#) include:

- M-034C: Short Beam Shear Strength for Composite Materials
- M-040C: Bearing Response for Composite Materials
- M-204C: Tensile Stress-Strain, Strength, and Modulus for Composite Materials
- M-204C_45: In-Plane Shear Stress-Strain, Strength and Modulus by Tensile test of a $\pm 45^\circ$ laminate
- M-206C: Tensile Stress-Strain, Strength, Modulus, and Poisson's ratio for Composite Materials
- M-209C: Combined Loading Compression (CLC) for composite materials
- M-209C_strength: Compressive Strength using Combined Loading Compression (CLC) for composite materials
- M-219C: Shear Stress-Strain for Composite Materials
- M-219RS: Shear Stress-Strain using Rail Shear method
- M-221C: 3 Point Flexural Stress-Strain, Strength and Modulus for Composite Materials
- M-225C: 4 Point Flexural Stress-Strain, Strength and Modulus for Composite Materials



strengthening the materials core of manufacturing enterprises



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