

Building on a Strong Foundation

With bittersweet gratitude, we say hail and farewell to our founders, Hubert Lobo and Renu Gandhi, upon their retirement. We move forward under the capable direction of new CEO Brian Croop, who has been with the company since 2002 and most recently served as lab director.

We celebrated this milestone with Hubert and Renu with a dinner at a local restaurant on March 21, 2023, which was also the 28th anniversary of the company's founding in 1995.



Applus DatapointLabs staff celebrate move to new, expanded facilities in June 2021. Hubert Lobo, seated at front right; Renu Gandhi, standing fourth from left.

The company at first focused on testing a wide range of plastic materials with the aim of providing the physical properties data that were in great demand by product development organizations. In 2002, the Society of Plastics Engineers

honored Hubert Lobo as a Fellow, recognizing his pioneering work in quantification of material behavior for CAE. In the same year, Hubert and Renu launched Mateareality to meet the challenge of managing vast amounts of highly diverse data. Hubert has received three US patents and authored dozens of publications on various aspects of materials in simulation. Since our beginning, we have continuously pushed boundaries to expand our capabilities in testing and data management technology and methods, as well as in the types of materials tested.

We now serve a global clientele of more than 1,800 companies in 49 countries. To date, we have tested more than 30,000 materials - an average of more than 1,000 materials per year! We partner with software providers to support more than 30 simulation codes with *TestPaks*[®] to provide load-and-go material properties and formatted material input cards for CAE and FEA. Our seasoned, expert technical team operates ISO 17025 and Nadcap certified laboratories to test virtually any materials used in the products of today and those of tomorrow: plastics, metals, composites, foams, rubbers, additive materials, films, and adhesives.

As we look forward under new leadership, the core strengths of the company and our commitment to providing expert material testing services and digitalization software to improve the operational efficiency of materials and process engineering, test labs, and R&D to our global clientele remain unchanged.

Upcoming Events

- Meet our representative at the [CADFEM ANSYS Simulation Conference Switzerland 2023—Trends und Innovationen in der Numerischen Simulation](#), June 15, 2023; Ostschweizer Fachhochschule, Campus Rapperswil, Switzerland.
- Meet our representative at the [Paris Air Show](#), June 19-25, 2023; Paris, France.
- Meet us at the [OpenRadioss™ Users' Day](#), June 27, 2023; Aachen, Germany. We present our work on *Material Testing and Processing for Successful Simulations of Foam Materials (LAW90)* (see [abstract](#)).
- Find us at the [SPE Automotive Composites Conference & Exposition](#), September 6-8, 2023; Novi, MI USA. Applus DatapointLabs is an Associate Sponsor.
- Meet our representative at the [SPE Automotive TPO Engineered Polyolefins Global Conference](#), October 1-4; Troy, MI USA.
- Find us at the [14th European LS-DYNA Conference](#), October 18-19, 2023; Baden-Baden, Germany. Applus DatapointLabs is a Silver Sponsor.

A Brief History of DatapointLabs

- 1995 - Founding of Datapoint Testing Services announced at SPE ANTEC '95 in Boston, MA USA
- 1996 - First commercial lab to offer material testing on a 5-day standard turnaround
- 1999 - Created *TestPaks*: a single order, to obtain all the data and material cards for simulation: Moldflow, Abaqus, ANSYS
- 2000 - Company name changed to DatapointLabs
- 2002 - Mateareality.com founded, offering software for materials
- 2000 - DatapointLabs.com launched with web-enabled test catalog and order placement

(more)

Lab Equipment Upgrades Continue with the Addition of New Laser Flash Apparatus



TA Xenon Flash DXF

A laser flash apparatus is used to fire a short pulse of energy at the surface of a test specimen at a specified temperature. The heat transferred through the specimen results in a temperature rise on the opposite surface, which is measured by an infrared detector. Analyzing this temperature change allows thermal diffusivity to be determined.

Thermal diffusivity is essential for heat transfer calculations. In addition, when combined with density and specific heat measurements, thermal diffusivity is used to calculate thermal conductivity for materials where the thermal conductivity cannot be measured directly. See the thermal diffusivity tests [T-310](#) (temperature scan) and [T-311](#) (single temperature) in our Test Catalog.

Applus DatapointLabs to Present Enhanced Testing Capabilities for Simulation of Foam Materials

We are pleased to be invited to discuss the complexities of material testing and model validation for foam materials with a worldwide community of researchers, software developers, and industry leaders at the OpenRADIOSS™ Users' Day in Aachen, Germany, on June 27, 2023. The presentation by Daniel Campos Murcia and co-authored by Brian Croop will summarize some of the work we have performed recently for our global clients in various industry sectors.

Beyond Standards: Material Testing and Processing for Successful Simulations of Foam Materials (LAW90)

By Daniel Campos Murcia and Brian Croop, Applus DatapointLabs

Abstract:

Simulations play a crucial role in engineering and material science, and their success heavily relies on the accuracy of input data. Material testing, data conversion, fitting, and formatting are essential steps in the simulation process. This conference will highlight the importance of material testing requirements that extend beyond ISO and ASTM standards to obtain reliable data for input into various common material models, such as Elastic-Plastic, Hyperelastic, and Rate Dependent models. The complexity of foam materials is shown through a case study of successful validation of polyurethane (PU) foam ball drop impact test using LAW 90. PU foams exhibit high deformation with rate dependency in compressive loading, as well as viscoelastic unloading behavior. Proper handling of input test data and critical settings in simulation setup are crucial for accurate results. The case study will showcase our streamlined approach to successful simulation of foam materials, including challenges and limitations of current material models.

DatapointLabs history, continued

- 2004 - Matereality cloud goes commercial, starts delivery of digital test reports for DatapointLabs
- 2005 - DatapointLabs offers rate dependent properties for crash simulations for automotive safety and light-weighting applications
- 2009 - Patent issued for material data management
- 2011 - Patent issued for electronic lab notebooks (PicSci)
- 2014 - Digital Image Correlation techniques introduced to enhance composite testing capabilities
- 2015 - DatapointLabs expands its services to help optimize new processes like additive manufacturing
- 2015 - DatapointLabs is the first commercial laboratory in the US to offer dynamic tensile testing at speeds up to 20 m/s
- 2018 - DatapointLabs joins Applus Laboratories division; Applus DatapointLabs and Applus Software brands introduced
- 2018 - Software for laboratory information management released (eLim)
- 2020 - Applus DatapointLabs marks 25th anniversary
- 2020 - Applus DatapointLabs and Applus IDIADA partner to offer advanced failure model calibration for metals and plastics
- 2021 - Applus DatapointLabs and Applus Software move to new, larger facility to accommodate expansion
- 2021 - Applus DatapointLabs achieves Nadcap accreditation for Non-Metallic Materials Testing
- 2023 - Applus DatapointLabs achieves Nadcap accreditation for Material Testing Laboratories
- 2023 - Founders, Hubert Lobo and Renu Gandhi, retire after 28 years of leadership. Brian Croop named new CEO.
- 2023 - Applus DatapointLabs expands its capabilities for material testing and model validation of foam materials