

DYNAmore GmbH

DYNAmore is dedicated to support engineers in solving nonlinear mechanical as well as multiphysical problems numerically. Our product portfolio includes the finite element solver LS-DYNA, the pre- and post-processor LS-PrePost and the optimization software LS-OPT as well as numerous finite element models needed for crashworthiness simulation (dummies, barriers, pedestrian and human models, etc.). Our main field of activity is to distribute, teach, support, and co-develop the software LS-DYNA and LS-OPT. In addition, we provide engineering services for numerical analysis and integrate simulation software in your CAE environment.

Our advanced training offer includes classical seminars, workshops, webinars, support and information days as well as LS-DYNA user conferences. More detailed information can also be found on our support and tutorial websites.

We are a top address for pilot studies and development projects with respect to the simulation of nonlinear dynamic problems. We are always at your disposal to answer your questions on specific application as well as test licenses.

You will find DYNAmore in Stuttgart, Dresden, Ingolstadt, Berlin, Langlingen, Zurich (CH), Linköping (S), Gothenburg (S), Torino (I), Versailles (F) and Dublin, Ohio (USA).

Contact

DYNAmore GmbH
Industriestr. 2
D-70565 Stuttgart, Germany
Tel.: +49 (0)7 11 - 45 96 00 - 0
Fax +49 (0)7 11 - 45 96 00 - 29
E-Mail: info@dynamore.de
Internet: www.dynamore.de

Take advantage of our wide variety of online services

www.dynamore.de

- Software products and FE models
- Software and documentation downloads
- Current information and offers
- Information about seminars and conferences
- FE and IT services
- Contact addresses

www.dynaexamples.com

- Extensive collection of LS-DYNA examples in various areas
- Images, animations, LS-DYNA input decks

www.dummymodels.com

- Technical information about LS-DYNA dummy models

www.dynalook.com

- Numerous publications about LS-DYNA applications to download

www.lsoptsupport.com

- LS-OPT support page
- Examples, documentation
- FAQs, how-tos

www.dynasupport.com

- LS-DYNA support page
- Tutorials, release notes
- FAQs, how-tos

www.dynamore.de/youtube

- Tutorials
- Animations

www.ls-dynacloud.com

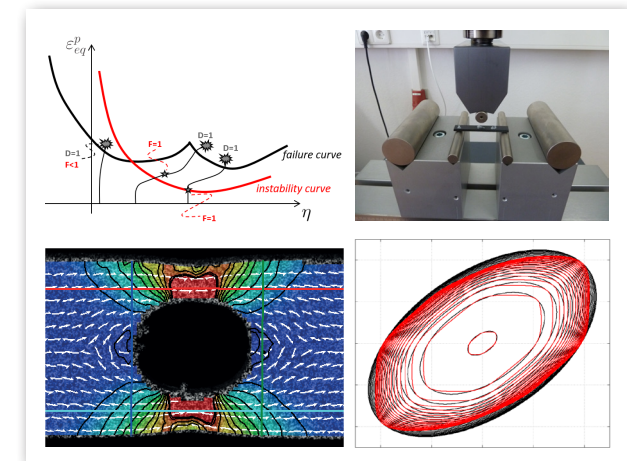
- HPC cloud solution for LS-DYNA

www.scale.eu

- CAE data management (SDM)
- Process integration/automation
- Optimization

Experiments and calibration

Materials characterization



LS-DYNA material cards for polymers, metals, and composite materials.

Experiments

For many materials, the mechanical properties required for simulation are not known. Typically, a precise specification is cost-intensive and requires a considerable waiting period.

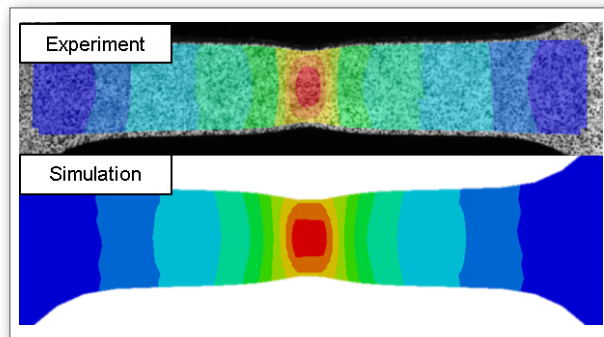
In contrast, our selection of experiments, specific to certain requirements, provides a quick, reliable basis for generating material cards for polymers, metals, and composite materials which facilitates predictability.

Our services:

- Static, dynamic, and cyclic testing
- Tensile, compression, puncture, and bending testing
- Component testing
- Sample conditioning
- Sample processing and collection from components, sheets and panels
- Optical 3D strain measurement and detailed local distortion evaluation

Your benefits:

- Testing and adjustment from a single source
- Time and cost efficient
- LS-DYNA developer team is always nearby



Tensile testing with strain field

Material models and calibration

The quality of the material cards has a significant influence on predictability in numerical calculations. In addition to advanced testing processes, our customers benefit from our engineers' many years of experience in the area of numerical description of mechanical material behavior.



Our characterization spectrum includes:

Deformation behavior:

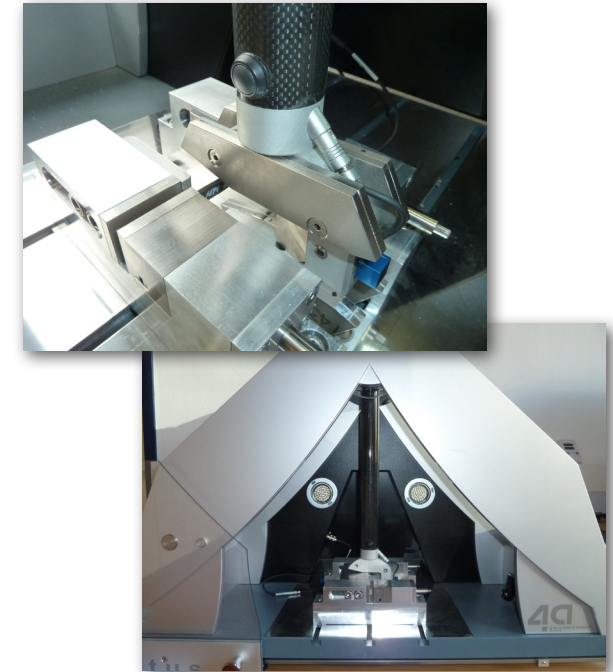
- Viscoelastic and viscoplastic
- Isotropic or anisotropic
- Tension-compression asymmetry

Damage and failure modeling:

- GISSMO (Generalized Incremental Stress State dependent damage Model)
- DIEM (Damage Initiation and Evolution Model)
- eGISSMO (Mat Add Generalized Damage)
- Damage development under cyclic load

References

Customers from various industries trust the predictability of our material cards. In numerous projects, e.g. in application areas such as "crash" and "forming", we are a reliable partner for successfully completing tasks in complex subject areas.



Our customers include:

- | | |
|----------------------------|------------------|
| ■ BMW | ■ Arcelor-Mittal |
| ■ Daimler | ■ Britax Römer |
| ■ Dr. Ing. h.c. F. Porsche | ■ Novelis |
| ■ Honda | ■ Siemens |
| ■ Opel Automobile | ■ voestalpine |
| ■ Volkswagen | |