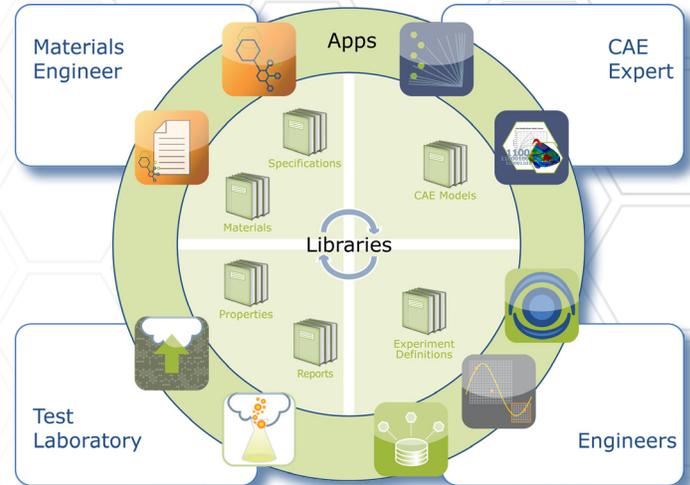# matereality

Material Supplier Database

Show Off Your Materials

Material Supplier Database

Matereality offers a secure, science-based software capable of capturing any material data in full interactive detail. The Material Supplier Database is a fully scalable solution to store and showcase detailed data on all of your materials, no matter how complex — you can never outgrow your database. You and your clients can apply powerful software apps for advanced plotting of simple and complex data accompanied by analytics to visualize data trends instantly. Convert units, zoom, interrogate curves, compare different datasets and materials, share, or export data to Excel or CAE, all with the click of a button. All databases offer full access control: keep your data private, or share it selectively with your clients and collaborators.

Your Materials Information

Store, view, search, and edit your secure database. Discrete, interconnected libraries hold different kinds of materials information: properties data, CAE material cards, test reports, specifications. There are truly no limits!

Show Off Your Materials
Free, unlimited access for your clients.

Collaboration
Share richly detailed data with colleagues by e-mail link, or embed the Viewer into your internal documents and web media.

Traceability
Each dataset is supported by a Data Certificate which provides complete traceability. Information includes test techniques and parameters, sample and specimen details, date, and accreditation.
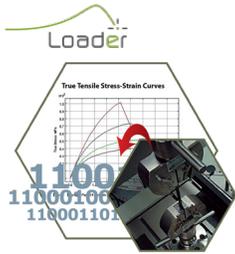
Governance
Control and track access or usage, and set data presentation, units, and search preferences.

Software for Your Engineers

Your Material Supplier Database is accompanied by a suite of browser-based software to help your engineers and technical personnel to load, analyze, and post-process material data.

The **Loader** allows users to populate their own material database. Data can be loaded, copied from other databases, or imported from a variety of file formats, including CAE material model files.

- Easy upload of both simple and complex material data
- Copy feature downloads an editable copy of any material data on Matereality for modification
- Optional DataPipes Import feature reads material data from test instruments into your database
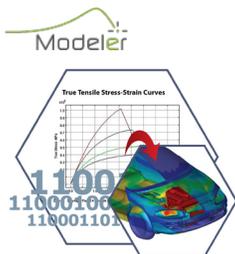- Fit data to equations

The **Viewer** is used to view and analyze material data of any complexity.

- Trends and dependencies become apparent
- One-click export to Excel
- Automated unit conversion
- Detailed data inspection and curve interrogation, including zoom
- Data Certificates are provided to ascertain reliability of data
- Collaboration and sharing tools
- Embed views inside internal documents, web sites, presentations
- Access control and transfer of data between team members

The **Modeler** transforms raw material data into CAE-ready input material cards.

- Simple elastic, elastic-plastic, to rate-dependent, viscoelastic, hyperelastic material models for FEA, plus injection-molding simulation parameters
- Includes data mining robots to identify the correct data needed for a material model
- A graphical user interface allows editing and fine-tuning of the material model parameters
- Integrated inside Abaqus/CAE, ANSYS Workbench, Moldex3D, SIMPOE, and SolidWorks

The **Analyzer** provides analytical tools to compare and contrast materials.

- View historical trends
- Automated cross-plotting of comparable curve data
- Statistical error banding to assess the variability of curve data

Client Outreach

Draw engineers to your website and allow them to explore your materials on your site. Show off your materials.

Customizable Portals put the power of Matereality databases and software on your website. Clients can use Matereality's search tools, Viewer, and Modeler software services, all from your website or material database page. You'll get full Matereality functionality branded with your logo and design. Maintain control over your data at all times.

- **Activity Tracker** app aids your sales outreach. See who has viewed your data.

Custom Badges provide a direct link to tools for Technical Services, so visitors can access material data, CAE material cards, and other useful information. Badges can be used on website, intranet, or in e-mails.

- **Materials** app: Display the materials of your enterprise in one place, along with associated composition, multi-step processing, certifications, availability, MSDS, datasheets, etc.
- **Specifications** app: Create material specifications for your enterprise with required property targets and ranges as well as other acceptance criteria. Check candidate materials for acceptance with the specification.
- **CAE Models** app: Provide a repository of material cards created for CAE applications using Matereality's CAE Modeler software, or upload material cards you have created externally. Share with potential clients selectively.

Product Details

Your Material Supplier Database comes with a complete set of tools to streamline your customer-facing technical support operations. Material Databases come ready-to-implement with no software installation or maintenance required. All common property types are pre-loaded. Simply start adding your data into the system.

Material Data Steward

This is a special account controlled by an administrator who is responsible for your Material Database. The steward may be technical, or, in large organizations, an administrator who is supported by a technical expert.

- Keep the database up to date
- Modify material nomenclature
- Review and approve new material property data
- Transfer material data ownership to product specialists
- Act for anyone who has retired or left the company

Handling Multiple Product Lines

A Product Database can be created for the technical support specialist dedicated to each product line. All material data for a product line is owned and controlled by this specialist.

- Controls the status of data: public, private, or hidden, following your business practice
- Approves the release of private data to qualified users of your Material Database
- Monitors Access Logs to see who is using your data

Client Access to your Material Database

Access is free and unlimited to your clients. All clients need to obtain a unique global identification in order to access your Material Database. Registrations are managed by Matereality.

Fact:
Datasheets
are out of date.
They do not contain enough information to let your clients or colleagues make informed decisions about your materials.

matereality

strengthening the materials core of manufacturing enterprises

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