The materials industry has never been more competitive. Margins are tight, customer requirements are increasingly demanding, and materials are being pushed to the limits of their performance. New legislation on restricted substances and new environmental initiatives in manufacturing present additional challenges – but also opportunities to the materials producer who can respond quickly with the appropriate declarations and advice.

Every department of a materials producing organization generates and consumes materials information: from customer datasheets to marketing brochures, from raw test data to simulation models. This information must be controlled, searchable, up-to-date and delivered in a multitude of different formats to the people (both your staff and customers) who need it. Your materials information is your greatest asset – Granta helps you control and apply it to give you the best possible competitive advantage in the marketplace.

“Our use of Granta’s system to prove, in a quantifiable fashion, the benefits of polymers over traditional material choices”

Ludo Aerts, Dow Benelux N.V

A single, central materials information system
No more wasted hours and days trying to track down a missing piece of materials information. No more confusion over which spreadsheet contains the most up-to-date properties. No more errors and rework caused by uncertainty over the pedigree of test data. No more delayed sales cycles where your customers are kept waiting for the information they need to make a decision. GRANTA MI™, the leading materials information management system for engineering enterprises, solves all of these problems.

Integration with the engineering desktop
The accurate, up-to-date, approved materials information in your GRANTA MI system can be deployed to application engineers and customers within their routine workflows. For example, you can provide design curves for simulation tools such as FEA analysis. You can ensure that data about your products is available in the format that people need, helping your customer-facing staff and providing value-added services to your customers.

Materials market analysis and positioning
If you are developing or marketing new materials you face a number of challenges: How do you identify gaps in the market? How do you identify opportunities to rationalize and simplify product lines? How do you demonstrate your competitive advantages?

CES Selector™ provides powerful tools to plot and analyze materials property data. Combined with Granta’s extensive library of data products, these tools help you explore materials space, analyze the market, and communicate the advantages of your products.

Publishing materials information
Whether you are deploying information internally or to the market, Granta can help you publish high quality, up-to-date materials information in an intuitive and interactive way.
Relevant products and services

GRANTA MI for materials information management

GRANTA MI, the leading system for enterprise materials information management, helps you capture, control, analyze, and apply materials data - for example, proprietary data from testing, QA, and research. Multiple departments can use GRANTA MI to manage, analyze, and certify their data, publishing it in a secure, controlled manner. GRANTA MI can capture the vital relationships between data, ensuring traceability. And it can help to ensure that materials knowledge is retained and re-used once a project is completed.

Once managed in GRANTA MI, end users can view the data in whatever way is required, whether that be comparison reports showing materials side by side, statistical reports for QA showing trends in composition or properties over time, or simply material datasheets, with images and charts layed out in the way you specify. Appropriately-authorized staff – and even customers – can access the information in GRANTA MI via a web browser, or from within CAD, CAE, or FEA software, assured that it is relevant, traceable, and the best available.

How can you ensure that potential customers choose your materials? How can you guarantee global reach and awareness of your products? How can you be sure that the information you publish is up-to-date?

You can choose to expose part of an in-house materials information resource created in GRANTA MI to the Internet, for public access or for secure access by key customers.

This enables you to go far beyond just publishing static datasheets. You can provide a professional, interactive engineering tool that makes data about your products easy to search, browse, and view directly in your customers’ web browsers.

You can also offer your key customers the benefit of secure, integrated access to your R&D information – involving them more closely every stage of your product development process.

Materials positioning using Granta’s CES Selector software. In this example, a company is analyzing the competitive landscape of materials used for thermal insulation. The plot is a trade-off of performance versus cost. The blue materials represent the company’s own materials; the green materials represent the competition. This analysis enables companies to answer questions like: “What gaps in the market are there for new product development? What opportunity do we have to simplify our product lines?”

CES Selector for materials producers

CES Selector is powerful PC-based software for plotting and comparing materials data - use it to analyze materials space and position your materials. CES Selector is based on the methods developed by Granta’s founder Professor Mike Ashby, a world-renowned authority in materials engineering, at Cambridge University. You can create interactive property charts showing any combination of engineering, economic, and environmental properties. CES Selector provides a quantitative and highly visual way to understand the relative performance of materials and to present this information to customers. A new Hybrid Synthesizer tool allows R&D groups to predict the properties of hybrid materials (e.g., sandwich panels) and display them within the CES Selector environment – demonstrating how the properties of a hybrid material can improve on those of their individual components.

Data products

Granta has assembled an unrivalled catalog of materials property data and related information. Examples include: MaterialUniverse, Granta’s database of 3,000+ generic engineering materials types; ASME BPV Code materials; MMPDS aero alloys; CMH-17, NCAMP, and AGATE composites; and CAMPUS and IDES Plastics. Data can be accessed and used with GRANTA MI or CES Selector - as a reference source, to enable materials comparisons, or to support market analysis and materials positioning.

Further information

www.grantadesign.com/solutions/matprod/

Granta services

Granta can help you to: audit your internal materials data workflow, organize your data, research custom datasets, consolidate test and legacy data, and implement and configure systems for storing and publishing materials information.