

Product overview

- Cost-effective multi-user access to leading sources of plastics property and processing data
- Generic data for the complete range of commercially-available engineering plastics
- Specific manufacturers' data for tens of thousands of polymer grades
- Apply a complete solution: data is integrated with powerful data management and selection tools, and can be combined with other reference data

Example uses

- Enabling materials selection projects
- Optimizing materials and manufacturing choices across the enterprise
- Positioning materials (for materials producers)

Industrial relevance

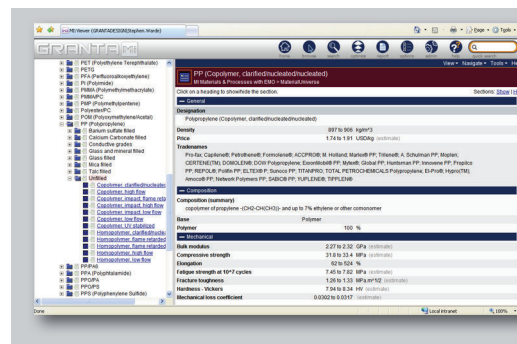
Aerospace, energy, defense, manufacturing, materials production, and other engineering enterprises



Plastics Data Series

Granta works with leading providers of plastics data such as CAMPUS, IDES, Rapra, and Moldflow to offer comprehensive property and processing information. Combined with Granta's analysis and selection tools, this data creates the most powerful design tool for plastic material selection ever created. Data modules include:

- ChemRes – chemical resistance rankings of plastics and elastomers
- CAMPUS Plastics – plastic resin sheets from 20 major vendors; high quality data due to comparable ISO standards
- IDES Plastics – plastic resin sheets from 870 vendors worldwide



Viewing Granta plastic property data within the GRANTA MI environment. In the left hand panel, a generic polypropylene grade has been located within the PolymerUniverse data module. Information and property data on the grade is provided in the right hand panel.

As a result, Granta makes the best references for plastic property and processing available and easily-accessible in a single place. We augment this with MaterialUniverse, our own data module which offers generic property data for the full range of commercially available materials, including polymers and elastomers. MaterialUniverse ensures complete coverage of materials space, enabling systematic comparison and screening.

Using Granta plastics data

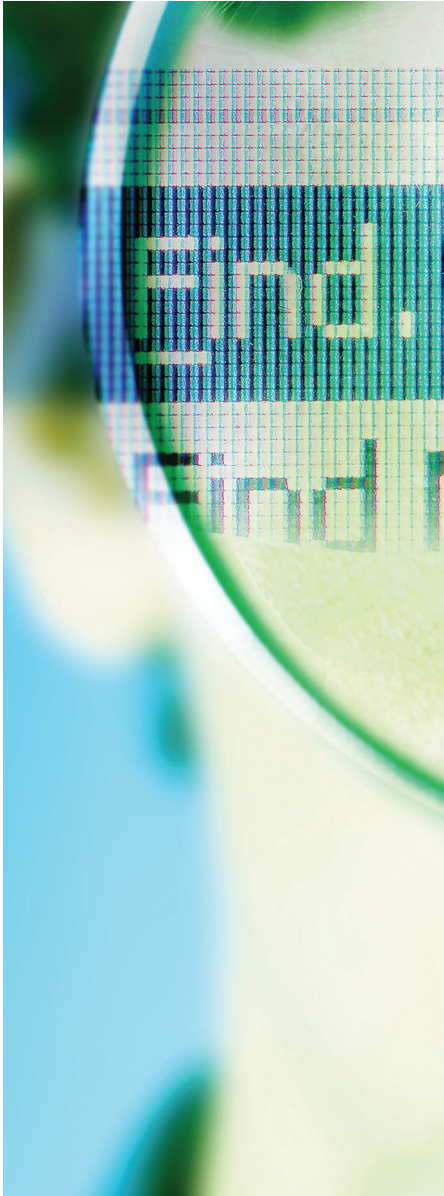
These data modules may be combined with each other and with other materials reference data, and accessed through Granta's GRANTA MI™ or CES Selector™ software products.

GRANTA MI (pictured above) is a comprehensive materials information management system, providing easy web browser interface access to materials property data along with tools to edit, manage, manipulate, and apply that data. It is designed to enable data access and to aid implementation of materials strategies across engineering enterprises.

CES Selector (pictured overleaf) is a Windows PC product that helps with critical decisions relating to materials, processes, and eco design. MaterialUniverse data supports initial screening and selection using CES Selector, while more detailed data such as that from CAMPUS or IDES can be used in final selection and specification. CES Polymer Selector is a special edition of the product that bundles CES Selector with data from the Plastics Data Series.

Through these products, Granta provides not only a comprehensive range of plastics data, but also a cost-effective solution for multi-user access, and integration with unique data management and selection capabilities. Granta customers receive regular updates of all data modules. Granta is a much more efficient means to access and use this vital data than traditional handbooks, CD-ROMs, or conventional databases.

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Further information

Find out how Granta reference data can help you by contacting us to arrange a discussion and on-line demonstration.

More in-depth information at our website.

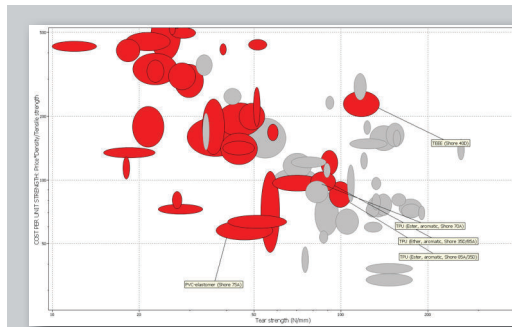
www.grantadesign.com/products/data/

MaterialUniverse

700+ of the 3,700 materials in the MaterialUniverse data module are plastics, elastomers, or polymer composite materials. See the separate MaterialUniverse product overview.

ChemRes

ChemRes ranks filled and unfilled plastics in the MaterialUniverse data module for resistance to a remarkable array of over 190 different chemical and solvent environments - everything from nitric acid to olive oil. Rankings are based on original tests by the Rubber and Plastics Research Association (Rapra Technology Ltd). ChemRes is recommended for engineers and designers with plastics selection applications where chemical resistance is important. With minimal effort, it lets you screen out inappropriate materials and alerts you to potential problems or weaknesses in a design.



A typical use for plastics data within CES Selector – trading off economic and technical factors in thermoplastic elastomer selection. Here, a rubber part needs to have softness and adequate recovery after deformation. Materials failing these criteria have been identified and greyed out. Then the part must be as cheap as possible for a given strength, and be resistant to tearing. The chart analyses this trade-off.

CAMPUS plastics

The CAMPUS (Computer Aided Material Preselection by Uniform Standards) data module contains 6,000 plastic resin grades from 20 raw material producers. A key feature of CAMPUS is that all data is measured according to strict CAMPUS ISO standards, ensuring a high standard of data comparability across the different manufacturers' datasets. The CAMPUS module is recommended for plastics engineers and designers, who require comparable property data on the plastics grades of major producers such as Bayer, BASF, Dow, DuPont, and Ticona.

IDES plastics

The IDES Plastics data module is by far the largest collection of ASTM datasheets and is regularly updated. It contains 88,000 plastics property datasheets from 870 resin suppliers including over 68,000 datasheets listing ASTM standard properties and over 39,000 datasheets listing ISO properties.

Other Granta data

A major advantage of Granta is the ability to integrate plastics data with other reference information. Granta's Data Series include specialist coverage of areas including aerospace, energy, and medical devices. Our Medical Devices Data Series includes a specific module on medical plastics.