CES Selector™ is a powerful PC software application that offers extensive materials property data, advanced graphical analysis, and specialist tools to help you solve real-world engineering problems.

**Key benefits**

- **Make better decisions** in early-stage design, re-design, or material replacement.
- **Check for potential issues** and build confidence in your materials choices.
- **Reduce turnaround time** in answering materials-related questions and solving problems.
- **Communicate your materials recommendations** in a simple, straightforward manner.

**Find, plot, and compare materials data.** Save time and ensure accuracy with easy-to-search materials data on your PC. Use interactive charting and comparison tools to visualise the unique MaterialUniverse™ data covering almost 4,000 engineering materials, plus a range of specialist databases on plastics, metals, and composites (details overleaf).

**Materials selection.** Get your materials choices right first time during product development. CES Selector makes it easy to apply a proven, auditable, repeatable materials selection method. Gain confidence in your decisions and generate new ideas.

**Materials substitution and equivalency.** Respond quickly to problems with material supply, regulation, increasing cost, or obsolescence. Find equivalent or similar materials at the touch of a button and easily compare material properties.

**Materials development.** Use graphical tools to identify gaps in the market that can be filled by new material solutions. Understand how your new material compares to what's currently available, and effectively communicate its unique properties and advantages.

**Lightweighting and hybrid materials.** Experiment with the Hybrid Synthesizer™, a tool for predicting hybrid material properties, reducing development time and guiding your materials testing.

**Eco design.** Reduce environmental impact at the design stage by making use of detailed environmental materials data. Use the Eco Audit™ tool to quickly assess a product design, identifying the major contributions to environmental impact.

Find more case studies at the website below...

[www.grantadesign.com/products/ces](www.grantadesign.com/products/ces)
Materials information

At the heart of CES Selector is a database of materials and process properties. You can populate this database with your data, or with reference data from Granta. Of particular value is MaterialUniverse™—nearly 4,000 records providing properties for virtually every type of purchasable engineering material. A strength is that there are no ‘holes’ in this data—property values are either populated with known, referenced data or estimated using Granta technology. The result is that you can screen the complete ‘universe’ of candidate materials without excluding those for which you may not have complete data.

New for CES Selector 2015: The Engineering Solver tool lets you quickly convert engineering requirements into material property constraints.

Choose your data. There are a number of editions of the software to choose from. See which one is right for you:

<table>
<thead>
<tr>
<th>Edition</th>
<th>Data &amp; application</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES Polymer Selector</td>
<td>CAMPUS®, M-Base, and Prospector® (formerly IDES) plastics data, plus ChemRes (chemical and solvent resistance). For plastics and thermoplastic elastomers (TPEs).</td>
</tr>
<tr>
<td>CES Metal Selector</td>
<td>MI-21 metals and StahlDat SX steels. For study of metals, e.g., global equivalencies.</td>
</tr>
<tr>
<td>CES Aero Selector</td>
<td>MMPDS aero alloys, CMH-17, and Firehole composites. Used in the aerospace, defense, motorsports, energy, and related industries.</td>
</tr>
<tr>
<td>CES Medical Selector</td>
<td>Medical MaterialUniverse data for medical device design, plus all Polymer Selector modules.</td>
</tr>
<tr>
<td>Add-on data (available for all editions)</td>
<td>ASME BPV Code, ESDU MMDH, SteelSpec, Global Powder Metallurgy, ecoinvent Key Materials Indicators, StahlDat Sheet Steels for Automotive.</td>
</tr>
</tbody>
</table>

CES Constructor™ (optional) enables you to add and edit data in your database.

More information. Read the case studies and watch videos at www.grantadesign.com/products/ces

Software tools

Browse: Browse thousands of materials and view complementary data on metals, plastics, composites, and more.

Search: Find the data you need—search by keyword or with advanced materials properties queries.

Chart: Create dynamic material property charts, providing a clear, visual process for material comparison and selection.

Select: Apply simple-to-use tools that guide you through the rational material selection methodology developed by Prof. Mike Ashby at the University of Cambridge.

Compare: Support substitution and equivalency projects with side-by-side comparisons. Use the Find Similar tool to discover the closest match to your selected material.

Optional tools

The Eco Audit™ Tool lets you estimate the energy usage and CO2 output from each stage in your products life cycle—helping you to consider environmental considerations early in the design process.

Hybrid Synthesizer™ predicts the performance of hybrid materials and structures (sandwich panels, foams, lattices, composites...) and compares them with other materials.