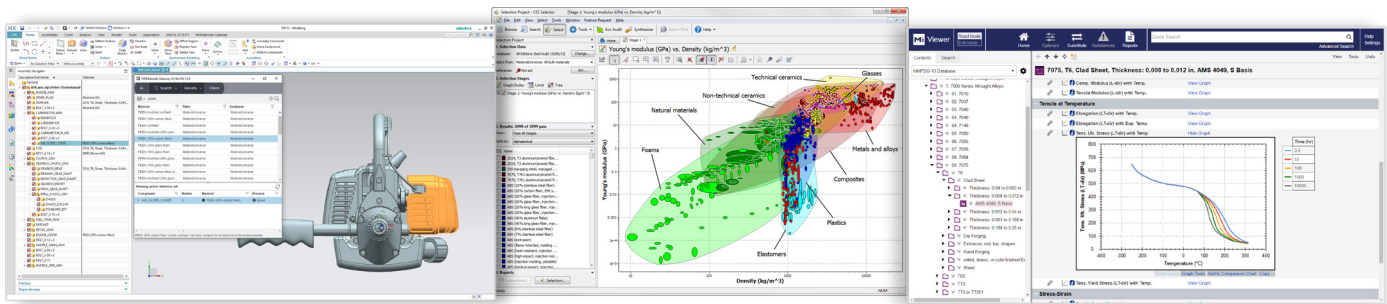


GRANTA Materials Data Products

Product Overview

Materials experts and engineers need high-quality, up-to-date and domain-specific data on the properties and processing of metals, plastics, ceramics and composites.



Such data informs critical decisions in design, materials selection and substitution, and meeting environmental regulations. Ansys Granta works with leading data providers to maintain an unrivalled catalog of materials reference data. Data hosted in a GRANTA MI™ database can be searched, browsed and applied either via web apps (top-right), or within your CAD, CAE or PLM systems (top-left). The GRANTA Selector™ software (top-centre) offers the option to use this data with a range of powerful graphical analysis tools.

/ A comprehensive library—choose from these data bundles

MaterialUniverse™ — Granta’s unique database of engineering, economic, and eco property profiles for 4,100 materials. Enables like-to-like comparison across the spectrum of material and processing possibilities. Links to other datasets enable it to act as an index.

Metals — Global Metals Specifications from ASM International, the German Steel Institute, UK Steel, and WMI. Creep and fatigue data from Japan’s NIMS. Boiler and pressure vessel data from ASME. Plus data on powder metallurgy and sheet steels.

Polymers — Data enabling designers to analyze and compare the properties and processing of plastics and elastomers. Includes M-Base and Prospector® plastics: well-respected spec sheets on tens of thousands of resins.

Composites — Composite data from manufacturers and leading research projects including Mil-Handbook-17, NCAMP, and AGATE, plus Firehole Composites.

Additive Manufacturing — Comprehensive data on hundreds of additive manufacturing machines and compatible materials from the Senvol Database™.

Aero — Authoritative aero alloy data from MMPDS plus data on relevant coatings.

Product Risk — Information on the environmental impact of materials and processes, on restricted substance risk, and on supply risk (e.g., critical materials).

/ Key Benefits

A **single source** for the materials property and process data that you need, from the experts in materials information technology.

Broad coverage of engineering materials (metals, plastics, composites...) and processes.

Get **data when and where you need it** — through a web browser, on your PC desktop, or within your familiar CAD, CAE, or PLM software.

Cost-effective, multi-user access.

A complete solution: access and apply reference data **alongside managed corporate data**.

/ Ansys Granta Materials Data Listing

The alphabetical listing details all available data sources and which bundles to purchase in order to access them. Data bundles can be licensed with both GRANTA MI system and GRANTA Selector software. Some individual datasets are available only in GRANTA MI.

Dataset	Description and how to purchase
ASM Medical Materials	Authoritative data on materials for cardiovascular, orthopaedic, neurological, surgical, ENT, urological devices. Online subscription or the Medical bundle.
ASME BPV Code	Materials data for the power and process industries. Metals bundle.
Coatings	Coatings properties and restricted substance data. Aero bundle.
Composites QED	Traceable composite data from the NCAMP and AGATE projects to support qualification, equivalency, and design. Composites bundle (GRANTA MI only),
ecoinvent Key Materials Indicators	Key materials indicators and background information from ecoinvent. Purchasable as a standalone option within GRANTA MI or GRANTA Selector.
ESDU MMDH	European design-strength data on aerospace metallic materials. Purchasable as a standalone option within GRANTA MI / Selector.
Firehole Composites	Data for continuous fiber reinforced polymer composites. Composites bundle.
Global Metals Specifications	An integrated resource of 100,000+ metals standards from global standards organizations and suppliers. Easily find equivalents and alternatives, search for composition and property data, and answer questions about supply. Data from ASM Alloy Finder (ASM International), StahlDat (German Steel Institute), Steelspec (UK Steel) and MI-21 (WMI). Metals bundle.
Human Biological Materials	Mechanical properties of human tissues, including bone, cartilage, ligaments, tendons, circulatory and dental tissues. Medical bundle.
JAHM Curve Data	Temperature-dependent property data for more than 2,900 materials. Ideal as input data for simulation. Included with GRANTA MI or GRANTA Selector.
Materials Data for Simulation	Ready-to-use input data embedded within Ansys tools for structural and electromagnetic simulation. Licensed with the relevant Ansys tools.
MaterialUniverse	Granta's unique dataset of engineering, cost, and eco property profiles for the full range of engineering materials. Included with GRANTA MI / Selector.
M-Base Plastics	A quality source of information on plastics and elastomers from M-Base Engineering + Software GmbH. Covers the complete international plastics market. Plastics bundle.
Mil-Handbook-17	Test data for advanced composite materials. Composites bundle.
MMPDS	The authoritative source of alloy data for aerospace component design (previously Mil-Hdbk-5). Aero bundle.
NIMS Creep and Fatigue	Fully accessible raw metals data from Japan's National Institute for Material Science (NIMS). Metals bundle (GRANTA MI only).
Powder Metallurgy	550+ materials from the Global Powder Metallurgy database. Metals bundle.
Product Risk	Restricted substances, their links to materials, and the legislation, regulations, and standards that regulate them. Product risk bundle (GRANTA MI only).
Prospector Plastics	100,000 plastic property datasheets from 926 suppliers (Prospector was previously 'IDES Plastics'). Plastics bundle.
Senvol Database™	Comprehensive database of Additive Manufacturing machines and materials. Additive Manufacturing bundle.
Sheet Steels for Automotive	Data that helps preparation of simulation models for crash, stamping, and forming. Metals bundle.
UL Yellow Cards	Safety- and performance-related properties for polymeric materials tested by UL to appropriate standards. Purchase standalone with GRANTA MI.

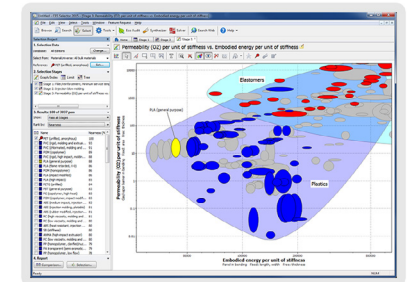
/ Using the data with Ansys Granta software

By accessing our comprehensive library of materials data from within Ansys Granta software tools, you benefit from features not available through other routes (such as on-line databases or handbooks).

A single source for data on the full range of engineering materials.

Interactivity — access 'live' data: search, browse, and analyze.

Specialist tools to plot, compare, and select materials.



Speed and scalability — fast access to the data you need for individuals and across teams, departments, and enterprises.

Cost and licensing — practical solutions for multi-user access.

Integration — combine and compare reference data with your own managed company data.

Pedigree and traceability — capture your decisions and retain a link to the version of the data that you used to make them.

Access to original source documents — for relevant Ansys Granta databases, you can click through from the live data to PDF copies of the original handbook pages.

Use data in CAE through seamless export or even integrated apps within your simulation software.

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If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge or put on wearable technology, chances are you've used a product where Ansys software played a critical role in its creation. Ansys is the global leader in engineering simulation. We help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and engineer products limited only by imagination.

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