I-DEAS® Material Data Catalog - MIL5 software is available for access through the I-DEAS Material Data System™ software. The catalog consists of more than 1,370 records covering materials commonly used for aerospace applications including steel, stainless steel, aluminum, magnesium, titanium, heatresistant alloys, and special purpose alloys. MIL5 is compiled and updated on a regular basis using the U.S. Government MIL-HDBK-5. The data has been approved for use by all departments and agencies of the U.S. Department of Defense and Federal Aviation Administration.

Properties

I-DEAS Material Data Catalog - MIL5 includes mechanical property data commonly needed for engineering design and analysis including:

- •Young's Modulus
- •Shear Modulus
- •Poisson's Ratio
- •Yield Strength
- •Ultimate Strength
- Elongation
- •Density
- •Coefficient of Thermal Expansion
- Thermal Conductivity
- Specific Heat
- Material Thickness
- •Ultimate Bearing Stress
- •Ultimate Shear Stress
- •Yield Bearing Stress
- •Yield Compressive Stress

Graphs of material characteristics include:

•Maximum Stress versus Fatigue Life •Room Temperature Strength versus Temperature

- •Thermal Expansion versus Temperature
- •Specific Heat versus Temperature
- •Thermal Conductivity versus
- Temperature
- •Stress versus Strain at Various Temperatures



Comprehensive properties for metallic material are provided by MIL-HDBK-5.

Statistical A, B, & S basis property values are provided for all materials. References to specific thicknesses, tempers, test temperatures, and test conditions are also provided.

Prerequisite

Core Master Modeler -or-I-DEAS Product Design Package -or-I-DEAS Artisan[™] Package -or-Core Simulation

For More Information

For more information, contact your local SDRC representative or call 1-800-848-7372.

commonly used materials for aerospace applications