



MATERIALS AND PROCESSES TECHNICAL INFORMATION SYSTEM FACILITY

Purpose:

To record and disseminate a NASA-wide database about materials to help assure safe material selections for NASA-produced space flight hardware.

The Materials and Processes Technical Information System (MAPTIS) characterizes over 32,000 unique material codes and over 66,000 unique test codes by recording attributes of each material in an Oracle database. These attributes include information about the material's characteristics and information about how the material reacts to various tests while being exposed to specific environmental conditions. Before introducing any materials data into the MAPTIS, NASA materials engineers evaluate the data to verify that it is of the highest quality.

Material test results and material usage information are collected by the MAPTIS from various NASA centers, international aerospace partners, and contractors. The MAPTIS is regularly populated with new materials test information, while existing information is continually evaluated to maintain its quality. All materials are rated in order to simplify the selection process for aerospace designs. Currently, the MAPTIS has over 800 users, including over 108 foreign users.

The MAPTIS database is password protected. Different user access levels prohibit unauthorized use. Some applications are open to all users (such as the Material Properties, Material Test Results, and Standard / Commercial Parts), some are NASA-wide applications (such as the Material Identification Usage List, Material Usage Agreements, and Material Failure Analysis), and some are facility-specific applications (for Goddard Space Flight Center Testing Information, White Stands Test Facility Test Results information, and Marshall Space Flight Center Material Testing Results database).

The Materials Processes and Manufacturing (MPM) Department provides web sites to introduce special materials topics to the public: http://map1.msfc.nasa.gov/WWW_Root/html/page7.html hosts materials related databases, including MAPTIS links and the MAPTIS Account Request Form. It enables access to material test results and provides links to other materials web sites.

This web site -- <http://map3.msfc.nasa.gov/mapwebhome.html>:

- The Aerospace Materials, Processes, and Environmental Technology (AMPET) conference, and
- The NASA Materials Replacement Technology Team (NMRT2).



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