

Autodesk® Moldflow® Insight 2012

AMI Materials and Databases

Autodesk®

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Materials and databases

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There are a vast range of materials that can be used to produce a plastic part, each contributing different qualities to the final product. To achieve the most accurate analysis results, it is important that the material you select for the simulation is similar to the actual material you have chosen for the part.

Autodesk Moldflow provides a wide variety of materials databases, which include thermoplastic materials, fillers, coolants, thermoset materials, and others depending upon your analysis.

Material testing and data fitting

You can incorporate new material data as it becomes available.


Importing material data

To import a new material supplied by Autodesk Moldflow's data fitting service, the material data file supplied will be in 21000.udb format. Before this new material can be used in a study, the data file must be added to the User database.

- 1 Create a personal database if you do not already have one.
- 2 Open your file manager and navigate to your personal database folder.
- 3 Move or copy the new material file into your personal database folder. The new material file is now ready to use in an analysis.

Creating a Material Data Method Report

The Material Data Method Report summarizes testing methodology used to generate the material parameters used in an analysis.

- 1 Select  **Tools tab > Databases panel > Search.**
The **Search Databases** dialog appears.
- 2 Select **Materials** from the **Category** drop-down list.
- 3 Select **Thermoplastics material** from the **Property type** list and click **OK.**
The **Search Thermoplastics material Databases** dialog appears.
- 4 Search the database for the required material.

TIP: Search the **User database** and select **All Thermoplastics material (User)** from the drop-down list at the top of the dialog prior to searching.

NOTE: If the material properties were edited in the User Database and the **Edit test information** was not updated, the report will be inaccurate.

- 5 Highlight the required material and click **Report**.
The **Material Data Method Report** appears.
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TIP: To print the report, right-click in the Report window, select **Save As** from the menu that appears. Navigate to where you saved the file, and then open and print the report from a text editor.

Autodesk Moldflow materials testing and datafitting services


View a report on material testing information.

Material Test Method and Data Comparison Report dialog

This dialog is used to compare the material data and testing method relating information for the selected materials.

To access this dialog, right-click the Material icon in the **Study Tasks** pane and select **Compare With**, select one or more materials in the list, and click **Compare**.

TIP: The **Compare** button is also available in the dialog that appears after performing a search in the materials database.

The first column of the report shows the data or test method property being compared, the second and subsequent columns show the value of the property for each of the selected materials. Click  to graphically compare viscosity, thermal conductivity, specific heat or pVT data.

NOTE: This functionality is only available for thermoplastics material.

Material Data Method Report dialog

This dialog is used to view a comprehensive report on material testing related information for the selected material.

To access this dialog, right-click on the Material Selection icon in the **Study Tasks** pane and select **Report....**

TIP: The **Report** button is also available in the **Select Material** dialog and the dialog that appears after performing a search in the materials database.

NOTE: This functionality is only available for thermoplastics material.

Test Information dialog

This dialog is used to view the source of this material data, the date the data was last modified, the date of testing and the test method that were used for the data.

For more information about Autodesk Moldflow materials data and material testing methods, see [Autodesk Moldflow Plastics Labs testing service](#).