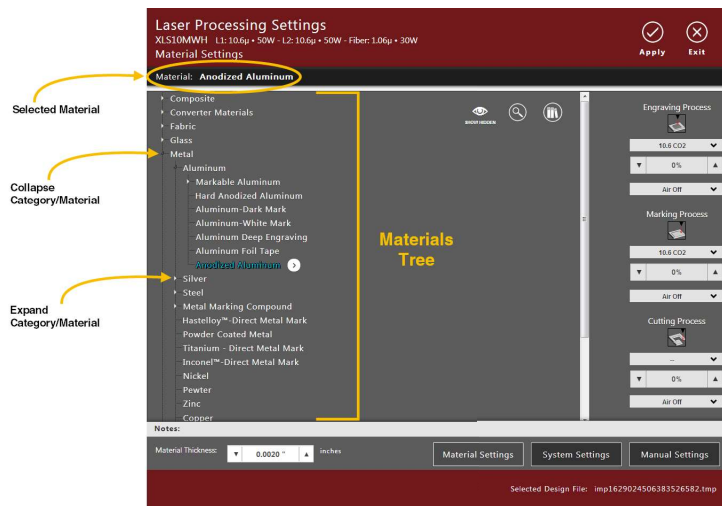


Material Settings Page

The **Material Settings** page displays when the **Laser Processing Settings** window first opens. This page lets you select the type of material, thickness of the material and units used for the thickness measurement for a new design file. Additional controls on the page allow you to customize the **Materials Database** view, access parameter settings or learn more about a material.

You can adjust laser intensity settings specified in the Materials Database by using the controls in the right pane of the page. **Gas Assist** settings can also be adjusted for each process.



NOTE: A material must be selected first before you can adjust any other settings. All settings stay with the design file.

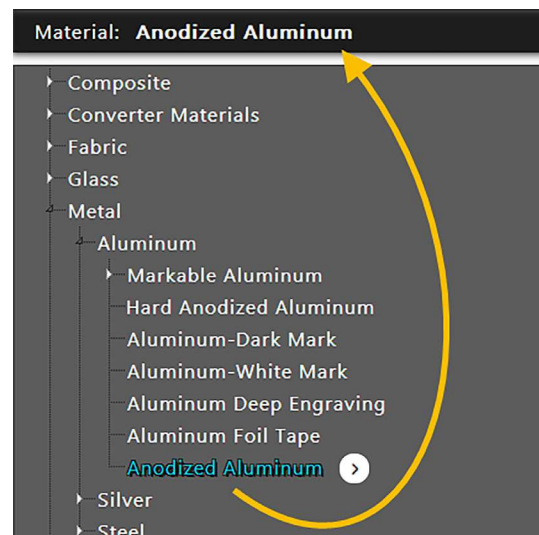


Materials Database

The Materials Database provides nominal settings for the most common materials used in laser processing. When you select a material from the materials database the system queries the database and uses the entered thickness to automatically calculate the settings that are required for laser processing that material.


Materials settings in the database are arranged in a multi-levelled tree structure. **Expand** or **collapse** the tree as needed to locate the material to be processed:

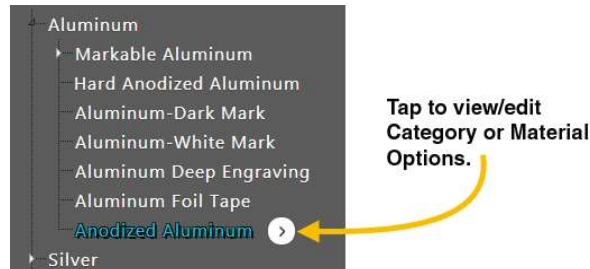
- Tap the expand symbol  next to a material category to **expand** the category, and then tap to select a *material type*. The selected material displays at the top of the page.
- Tap the collapse symbol  next to material category to **collapse** the category.



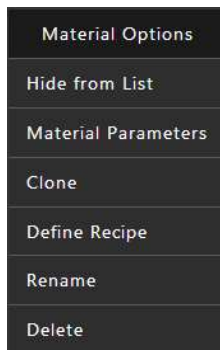
Working with Material Options

Material Options provide the ability to edit new or cloned custom materials, define a custom recipe and rename or delete custom materials.

Tap  next to a selected material.



The **Material Options drop-down** list displays.



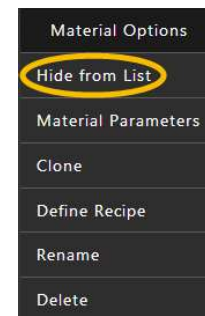
The following tasks can be performed using options on the **Material Options** drop-down list:

- **Hide a Material in the Materials Database**
- **Edit Parameters for a Custom Material**
- **Create a Custom Material from a Clone**
- **Define a New Recipe**
- **Rename a Custom Material**
- **Delete a Custom Material**

Hide a Material in the Materials Database

Tap **Hide** on the **Material Options** drop-down list.

When the **Hide** option is selected, the selected material is hidden and does not appear in the Materials Database. In this way you may hide materials that are not commonly used.

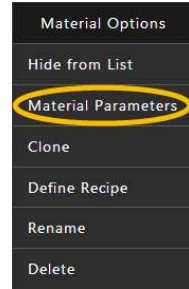


Edit Parameters for a Custom Material

Tap **Material Parameters** on the **Material Options** drop-down list.

The **Existing Material Parameters** window displays the parameters for the currently-selected material in the Materials Database. If the material selected is a custom material, edit the parameters as needed.

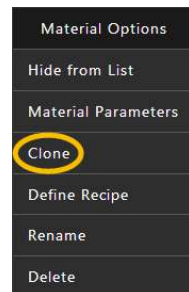
NOTE: These parameters are read-only when a standard database material is selected.



Create a Custom Material from a Clone

Tap **Clone** on the **Material Options** drop-down list.


The **Existing Material Parameters** window displays a copy of the parameters for the material currently-selected in the Materials Database. You can then edit the parameters of this copy to create a new custom material record.



The 'Existing Material Parameters' dialog box contains the following sections and fields:

- Material Code:** 251998
- Date Stamp:** 07/09/2015 17:27
- Material(English):** [Empty text field]
- Record Name:** [Empty text field]
- Category:** Aluminum (dropdown menu)
- Notes:** [Empty text area]
- Options:**
 - Visible
 - 3D Support
 - Fixed Thickness
 - CO₂ 9.3μ Support
 - Fiber 1.06μ Support
 - Can be Vector Cut
 - CO₂ 10.6μ Support
 - Stamp Support
- Laser Type:** Fiber Parameters 1.06μ (dropdown menu)
- Watts:** 50
- Fiber Simmer Power:** 0%
- Default Thickness:** 0.0000" (dropdown menu)
- 3D Power:** [Button]
- Engraving Depth Settings:**
 - Power:** 80%
 - Speed:** 58%
 - Image Density:** 1
 - Fiber Engraving Waveform:** 0
 - Fiber Engraving Frequency:** 30000 Hz
- Marking Intensity Settings:**
 - Power:** 40%
 - Speed:** 6%
 - PPI:** 500
 - Fiber Marking Waveform:** 0
 - Fiber Marking Frequency:** 30000 Hz
- CO₂ Cutting Depth Settings:** [Section header]

For a description of each option available on the **Edit Parameters** and **Clone** windows, see [New Material](#) under the **Category Options Dialog Box** section.

1. Enter a new Material Name and modify each field, as needed, for the cloned material.
2. Tap  to save your changes.
3. The new/cloned material is available in the Materials Database under the category selected for the material.
4. Tap **Close** to **Exit** the window.

Define a New Recipe


A recipe is a variant setup for a particular material. Here are two examples:

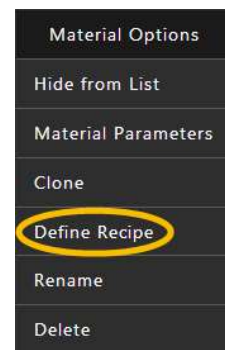
- You are using a Rotary Fixture to mark designs on glass vases. The vases are 2 inches, 4 inches and 8 inches in diameter and are all the same material —glass— and in this case, every other parameter to laser process these vases is the same except for the circumference. Rather than having to set the circumference parameter every time a vase is laser processed, create a recipe for 2 inch vases, one for 4 inch vases, and one for 8 inch vases.
- You are processing silicone rubber. The material from supplier A processes slightly differently than the material from supplier B. You can optimize the process settings for supplier A material and save them in a recipe under silicone rubber and do the same for supplier B material. When the material is being run, select the recipe appropriate for the supplier rather than manually adjusting the settings each time the material is run.

To define a new recipe:

Tap **Define Recipe** on the **Material Options** drop-down list.

Use the **New Recipe** dialog box to create a new recipe from the current system settings. When a new recipe is created, the material selected in the Materials Database becomes the parent to the new recipe.

Enter a *Recipe Name* in the text box, and then tap  to **Save** changes.




The new recipe displays on the Material Database.

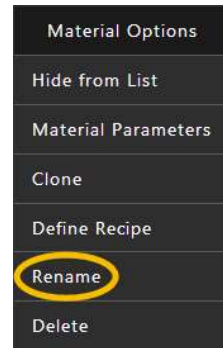
Rename a Custom Material

Renames the currently-selected material in the Materials Database.

NOTE: *You can only rename custom materials.*

Tap **Rename** on the **Material Options drop-down** list.

Enter a *new name* for the material in the text box, and then tap  to **Save** changes.



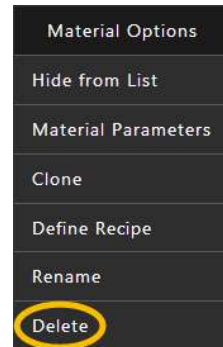
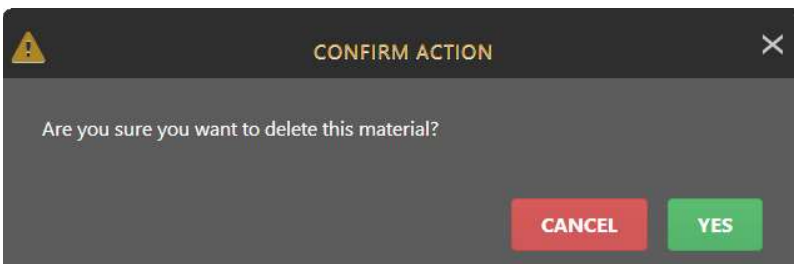
Delete a Custom Material

Deletes the currently-selected material in the Materials Database.

NOTE: *You can only delete custom materials.*


Tap **Delete** on the **Material Options drop-down** list.

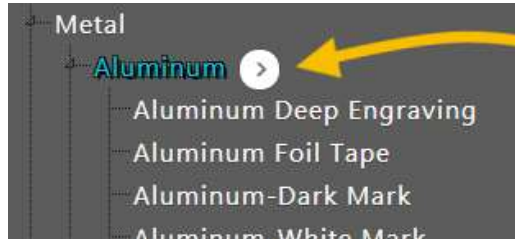
When the confirmation message displays, tap **Yes** to delete the material.



Working with Category Options

Category Options provide the ability to edit or create custom categories, create a custom material and rename or delete custom categories.

Tap  next to a category.



**Tap to view/edit
Category or Material
Options.**

Category Options
Hide from List
Material Category
New Category
New Material
Rename
Delete

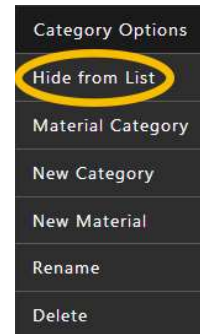
The **Category Options drop-down** list displays.

You can perform the following tasks using options on the **Category Options drop-down** list:

- **Hide a Category in the Materials Database**
- **Edit Parameters for a Custom Category**
- **Create a Custom Category**
- **Create a Custom Material**
- **Rename a Custom Category**
- **Delete a Custom Category**

Hide a Category in the Materials Database

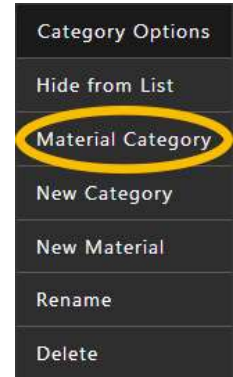
When the **Hide from List** option is selected, the category is hidden and does not appear in the Materials Database. This allows you to hide categories that you do not commonly use.



Edit Parameters for a Custom Category

Tap **Material Category** on the **Category Options** drop-down list.

The **Material Category** dialog box shows the parameters for the currently-selected category in the Materials Database. If the category selected is a custom category, edit the parameters as needed. (See [Create a Custom Category](#) for the field definitions.)

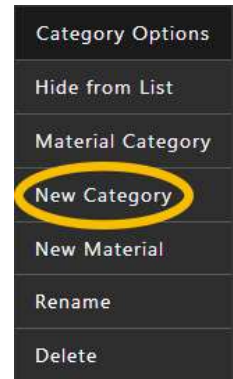
A dialog box titled "Material Category" with a checkmark icon on the top left and a close icon on the top right. The fields are: "Category ID: 404", "Category Name: Markable Aluminum" (text input), "Date Stamp: 07/09/2015 10:40", "Laser Mode Support:" with a list of checkboxes: "CO₂ Parameters 10.6μ" (checked), "Fiber Parameters 1.06μ" (checked), "CO₂ Parameters 9.3μ" (unchecked), "Record is Read Only" (checked), "Visible" (checked), and "Custom DB Record" (checked). "Parent ID: 5", and "Parent Name: Aluminum(parent)" (dropdown menu).

NOTE: These parameters are read-only when a standard database material category is selected.

Create a Custom Category

1. Tap **New Category** on the **Category Options drop-down** list.

This option allows you to add a new category to the Materials Database using the **New Material Category** dialog box.



2. Complete the following editable fields in this dialog box:

Category Name - Type the new category name in the text box.

Laser Mode Support


- CO₂ Parameters 10.6µm - Makes the material category available when this particular type of laser is installed in the laser system.
- Fiber Parameters 1.06µm - Makes the material category available when this particular type of laser is installed in the laser system.
- CO₂ Parameters 9.3µm - Makes the material category available when this particular type of laser is installed in the laser system.
- Visible - Makes the category visible in the Materials Database.

Parent ID - The system-assigned code for the parent category.

Parent Name - Select the category from the **drop-down** list under which the new category will appear in the Materials Database.

NOTE: The **Category ID** field displays the system-assigned code for the category.

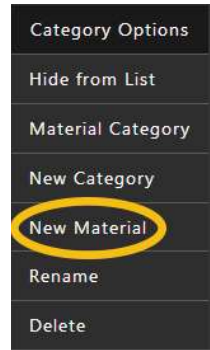
NOTE: The **Date Stamp** field displays the date and time that the category was created or edited.

3. Tap  to save the changes.

The new category is available in the Materials Database.

Create a Custom Material

1. Tap **New Material** on the **Category Options** drop-down list.
Use this option to create a new material using the **Add New Material** window.
2. Complete each field, as needed, for the new material.



The 'Add New Material' dialog box contains the following fields and settings:

- Material(English):** [Empty text field]
- Record Name:** [Empty text field]
- Category:** Markable Aluminum (dropdown menu)
- Notes:** [Large text area]
- Options:**
 - Visible
 - 3D Support
 - Fixed Thickness
 - CO₂ 9.3μ Support
 - Fiber 1.06μ Support
 - Can be Vector Cut
 - CO₂ 10.6μ Support
 - Stamp Support
- Laser Type:** CO₂ Parameters 10.6μ (dropdown menu)
- Watts:** 150 (text field)
- Default Thickness:** 0.0000" (text field)
- 3D Power:** [Button]
- Engraving Depth Settings:**
 - Power:** 0% (slider)
 - Speed:** 0% (slider)
 - Image Density:** 0 (slider)
- Marking Intensity Settings:**
 - Power:** 0% (slider)
 - Speed:** 0% (slider)
 - PPI:** 0 (slider)
- CO₂ Cutting Depth Settings:**
 - Power:** 10% (slider)
 - Speed:** 11% (slider)
 - PPI:** 500 (slider)
 - Max Depth:** 0.0000" (text field)
 - Cut Entries:** 0 (text field)
 - Cut Data:** [Button]

Material Identification Information

1. Complete the following editable fields in this dialog box:

The 'Material Identification Information' dialog box contains the following fields:

- Material(English):** [Empty text field]
- Record Name:** [Empty text field]
- Category:** Markable Aluminum (dropdown menu)
- Notes:** [Large text area]

- **Material Name** - Enter the name for your new material.
- **Record Name** - Displays the Material Name.
- **Category** - Select the category you want your new material to appear under from the **drop-down** list.
- **Notes** - Enter notes that describe the material record. These notes display at the bottom of the Materials Database when the material is selected.

Options

Options:

<input checked="" type="checkbox"/> Visible	<input checked="" type="checkbox"/> 3D Support	<input checked="" type="checkbox"/> Fixed Thickness	<input checked="" type="checkbox"/> CO ₂ 9.3μ Support
<input checked="" type="checkbox"/> Fiber 1.06μ Support	<input checked="" type="checkbox"/> Can be Vector Cut	<input checked="" type="checkbox"/> CO ₂ 10.6μ Support	<input checked="" type="checkbox"/> Stamp Support

- **Visible** - Controls whether the material is visible or not in the Materials Database. If you hide a material, this switch is affected. To restore materials that are hidden, first tap **Show All** on the **Materials Settings** page, select the hidden material you wish to restore, and then deselect **Hide** on the **Material Options drop-down** list.
- **Fiber 1.06μm Support** - Makes the material record available when a Fiber 1.06μm laser is installed in the laser system.
- **3D Support*** - If the material supports 3D mode, enables the ability to adjust the default 3D power levels for the new material using the **3D Support** button.
- **Can be Vector Cut** - Enables the ability to enter information into the Vector cut section.
- **Fixed Thickness** - Locks the available material thickness to one value.
- **CO₂ 10.6μm Support** - Makes the material record available when a CO₂ 10.6μm laser is installed in the laser system.
- **CO₂ 9.3μm Support** - Makes the material record available when a CO₂ 9.3μm laser is installed in the laser system.
- **Stamp Support*** - If the material supports **Rubber Stamp** mode, enables the ability to adjust Rubber Stamp settings levels for the new material.

Laser Type

Laser Type:	Watts:	Default Thickness:
CO2 Parameters 10.6μ ▼	150	▼ 0.0015' ▲

- **Laser Type** - Select the type of laser for which you are entering processing parameters (CO₂ 10.6μm, CO₂ 9.3μm or Fiber 1.06μm).

Laser Type:	Watts:	Fiber Simmer Power:
Fiber Parameters 1.06μ ▼	50	▼ 5% ▲

- **Watts** - Wattage available for the selected laser type.
- **Default Thickness** - Value displayed by default when selected from the Materials Database.
- **Fiber Simmer Power (Fiber only)** - Sets the amount of additionally-stored energy the Fiber laser has prepared when processing the material.

* Not available for use with the 1.06μm Fiber laser source.