Interreg North-West Europe

EUROPEAN UNION

Di-Plast

European Regional Development Fund

# Di-Plast - Digital Circular Economy for the Plastics Industry

# Matrix Tool Guidelines

Version from 14 September 2022

CONTENT

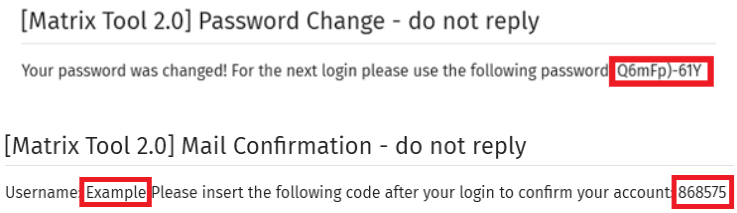
# 1 General Information

This information sheet should help with the different use-cases and how to interact with the Matrix Tool in general.

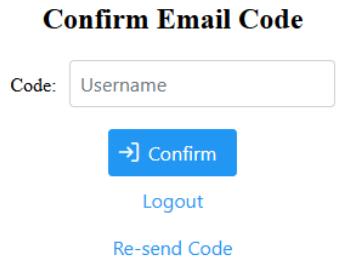
To get access to the Matrix Tool, an account creation needs to be requested from M.Bonnema+matrix@polymersciencepark.nl

# 2 First Login

After your request for an account was accepted you will receive two emails. One containing your randomly generated password and the other contains your Username and confirmation code:



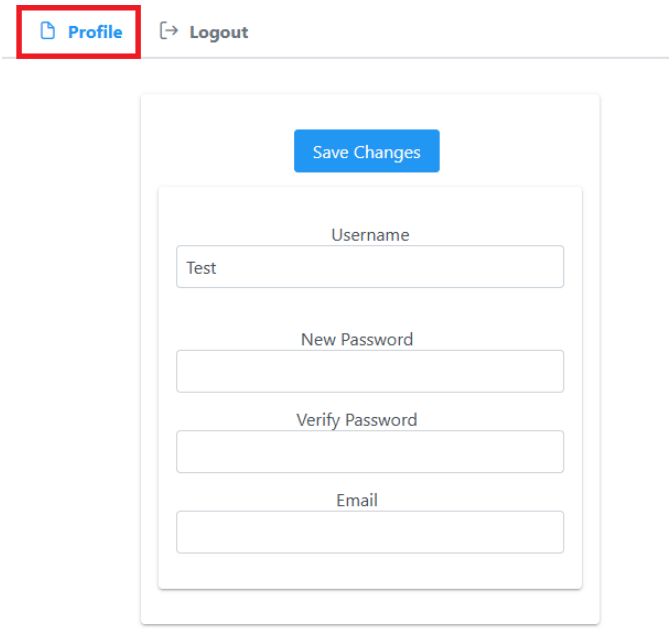

Please use the shown username or your email address in combination with the send password for the first login. Afterwards use your confirm code to activate your account



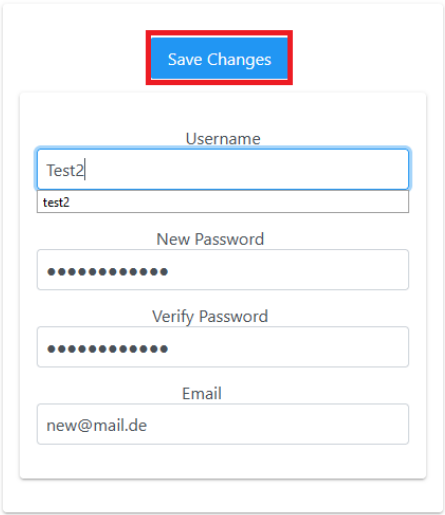

You will be greeted by the home-page, however you will be forced to go to the profile to accept the user agreement and to change your password.

# 3 Own Profile

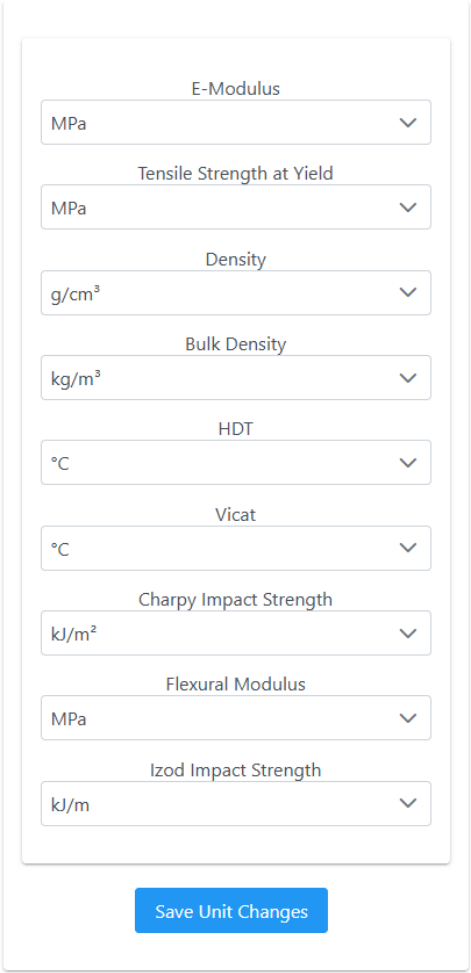
Under the “Profile” tab, the users account information as username, password or e-mail can be changed or viewed.




Press the “Save Changes” button to save all edited account information. If the password is changed, the “New Password” and “Verify Password” need to be identical.



Besides editing your user information, it is further possible to select the preferred units for different properties. By selecting the desired unit, the value of the property will be automatically converted into this selection in all other views.



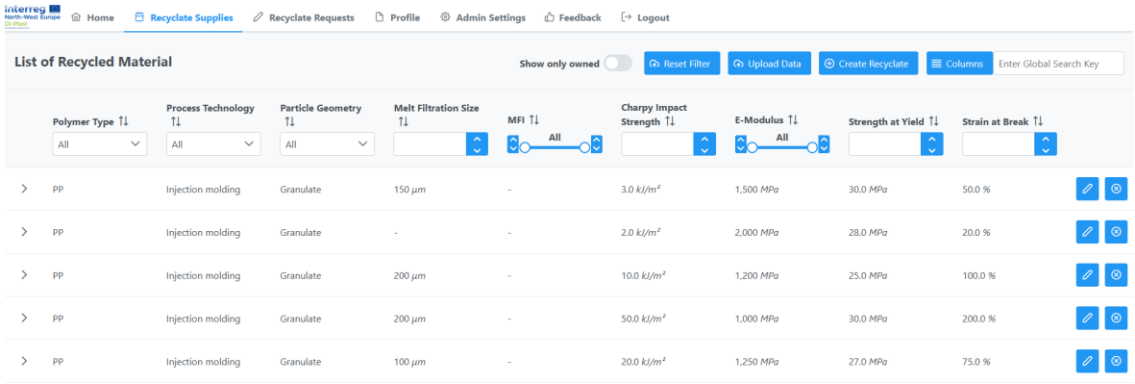
# 4 Table Interactions

The Matrix Tool provides information about offered recycled material and requested recycled material inside of two table structures. In this section it is shown how to handle the search filters, how to get suggested alternative recycled material and how to get into contact with the table item (recycled or request) creator.

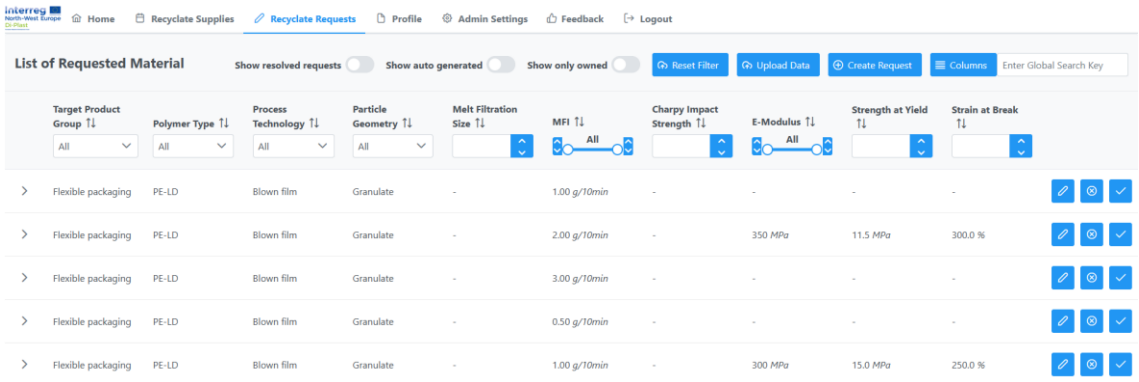
## 4.1 Recycled and Requests Tables

The two tabs “Recycled Material Provider” and “Recycled material Requests” both contain a table to handle information.


The “Recycled Material Provider” includes all known and offered recycled material information. The included table can be used to find recycled materials with specific properties or to get suggestions for alternatives; when switching from virgin material to recycled material.




The “Recycled material Requests” tab contains all known requests for recycled material and can for example be used to see what kind of properties are in demand right now.

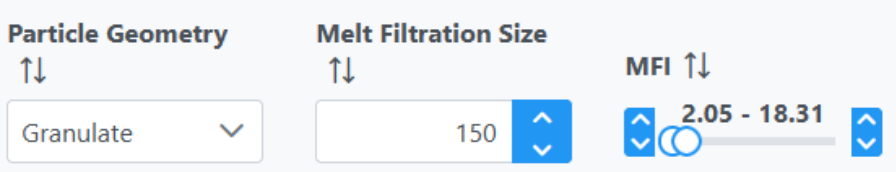



In the following section the search, ranking and contact functions will be described in more detail.

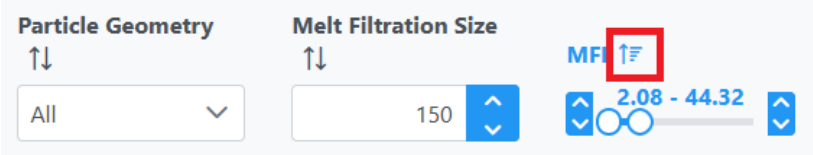
## 4.2 Search Form

The tables included search function inside the header, which show the most common properties for plastic materials.


By setting the filters to specific values, the shown material can be searched and limited to a filter selection. It is to note, that the smart filtering is including expert knowledge for each property to also include, for example, bigger values for the “Tensile Strength at Yield”; because a larger Tensile Strength (than the desired one) does typically not matter. Therefore, some properties also show smaller or larger values than the selected filtered value. This functionality is not to be confused with the ranking of alternative suggestions (described later).

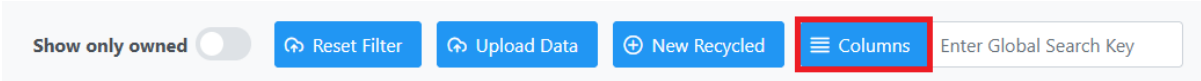


Ordering for specific properties is also possible, by clicking on the column name.

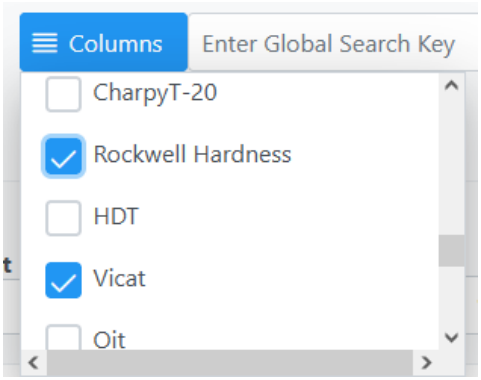



### 4.2.1 Selecting Search Properties

If the desired filtering properties are not shown, the columns of the tables can be changed by using the “Columns” button in the top right corner of the view.




In the following menu, the desired columns can now be selected or deselected.

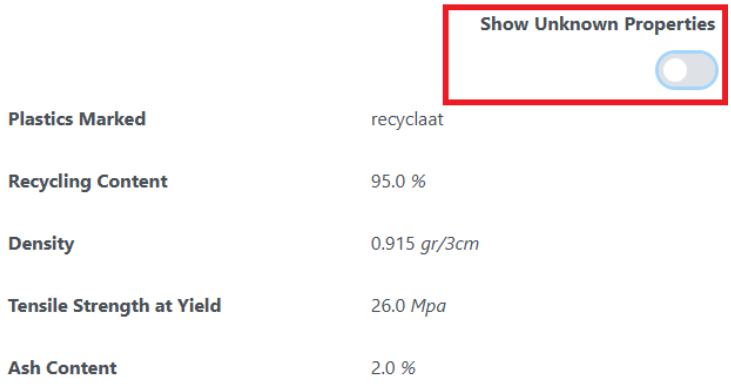



Because of the limited space, it is recommended to only select the desired properties. It is important to keep in mind that deselecting a property does not reset its filter. Therefore setting a filter for one property and switching to another to add more filter limitations is a valid strategy.

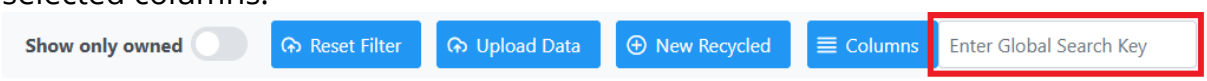
### 4.2.2 Details View

By pressing the triangle on the left of an item, a detailed view will be shown with all known properties of the selected item.


To reduce the detailed view, the “Show Unknown Properties” toggle can be deactivated to only show known properties of an item or vise versa.

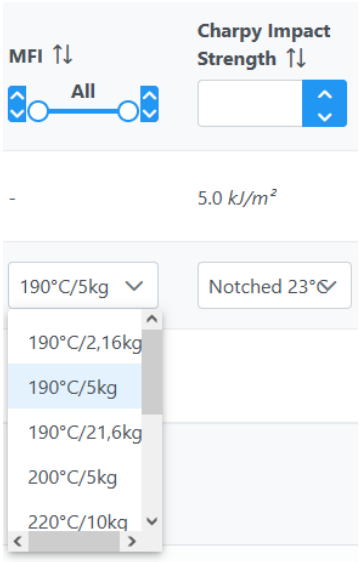



Beside those option, a general search function is included in the top right corner, which filters all elements for one specific text input regardless of the selected columns.



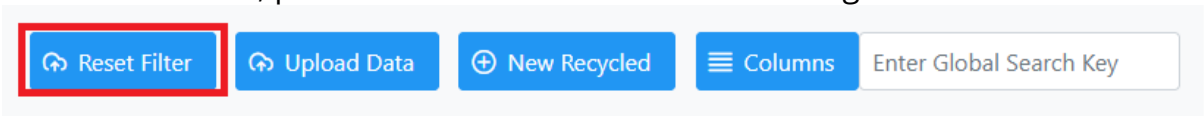
### 4.2.3 Measuring Conditions

A few properties can be measured under different conditions, where the results can't be converted between conditions. Thus, it is important to select the correct measuring condition per property.



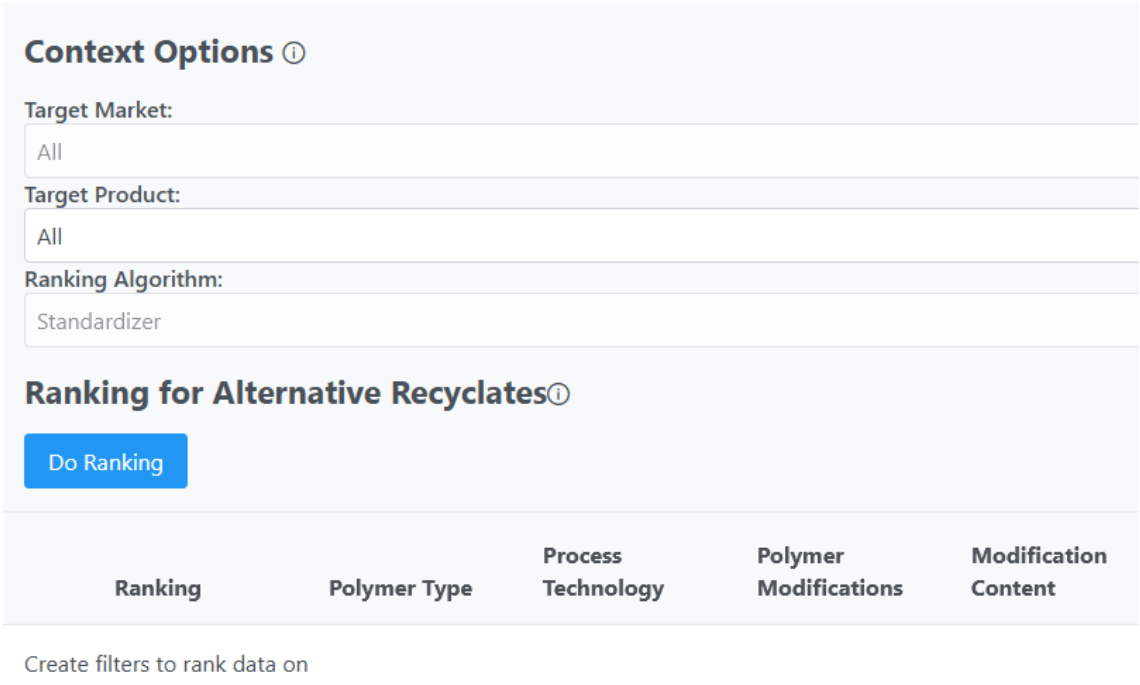

## 4.3 Resetting Filter

To reset all filters, press the "Reset Filter" button at the right corner.



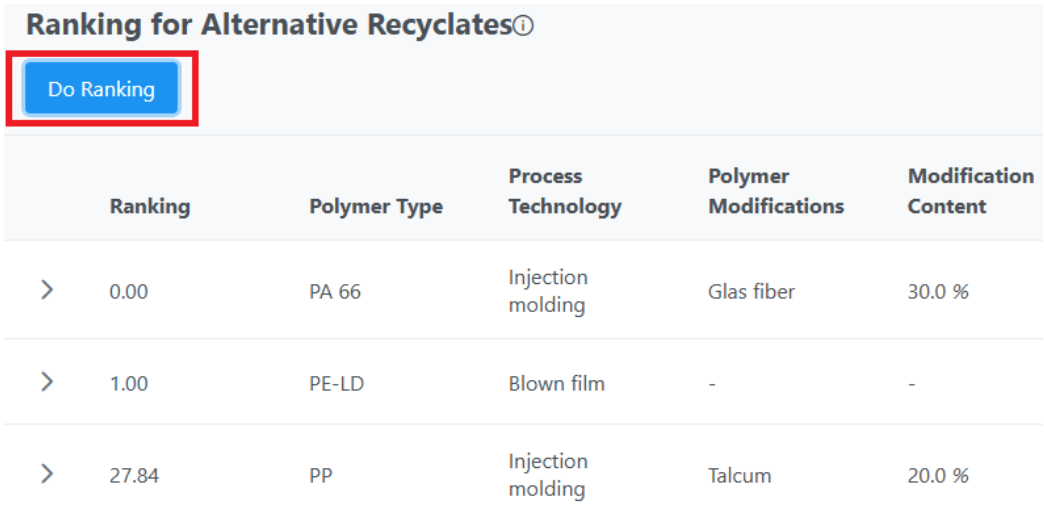

## 4.4 Ranking Alternatives

At the end of the recycled material view, a suggestion table is presented. This table shows alternatives for the given filter, while considering expert knowledge, the target contexts and previous requests, to provide a ranking of similar materials. While the upper table shows only recycled materials which fits the filters, this second table provides a ranking with alternatives that are as close as possible to the filter (based on expert knowledge).



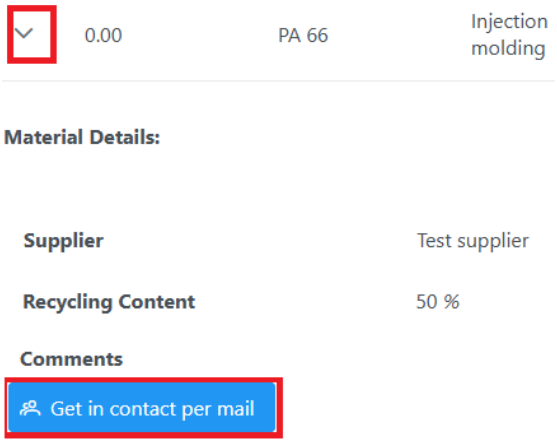

By selecting a “Target Market” or “Target Product” a context can be given, to for example provide more relevant alternatives from the infrastructure market.

By pressing “Do Ranking” the ranking using the current filter and context will be generated, showing the most suitable alternative (based on expert knowledge and the current data inside of the tool) in a top to bottom order.

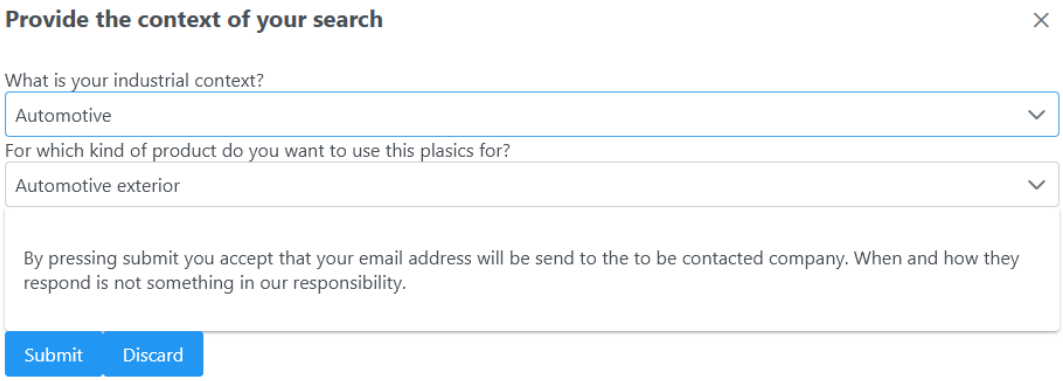


## 4.5 Contact Recycled/Requester of interest

When a recycled material or material request of interest is found, the creator of the item can be contacted via the “Get in contact per mail” button in the details view.




A short questionnaire will be shown. Please select your context of the request, to help further improve the tool.



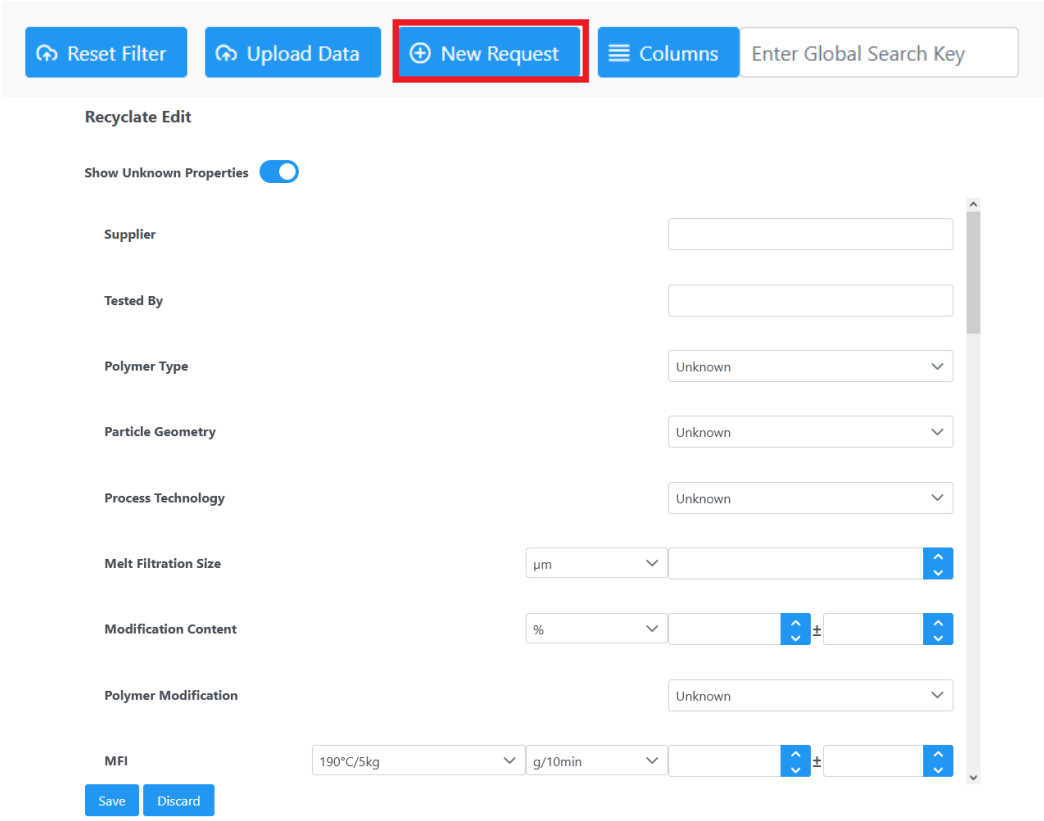

By pressing the “Submit” button, your account’s e-mail will be sent to the creator of the selected item. With this e-mail address, the item creator can get in contact with you. If or when the creator of the selected item will get in contact with you is not up to us, neither all communication which can happen between both parties.

# 5 Data Handling

In this section the general data handling will be described, as in how to create, delete or update recycled materials or requested materials.

## 5.1 Create Data

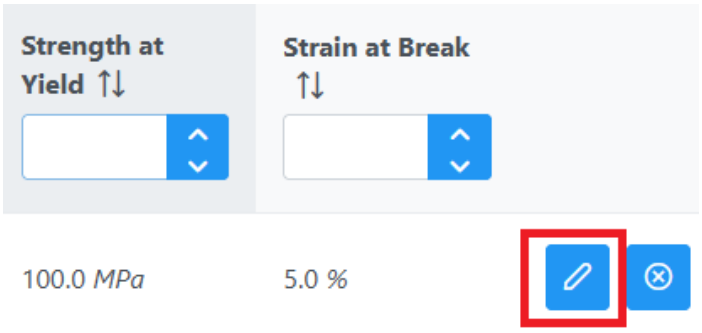
By pressing the “New Recycled” or “New Request” button, a dialog window can be opened.




This window includes all supported material properties, which can be selected as needed. By pressing the “Save” button at the bottom of the dialog, the new item can be saved. By pressing the “Discard” button, all entries will be discarded and NOT saved! The first column is always the name of the property, the second is the measuring condition, third is the unit of the provided value and lastly the values can be set depending on the property.

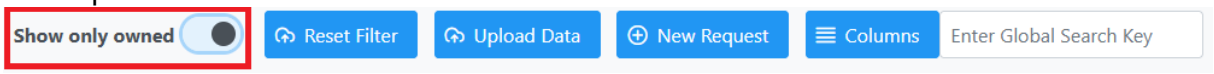
## 5.2 Update Data

To update any item (only admins and the item's owner can update or delete items) the edit button of the desired item needs to be selected.



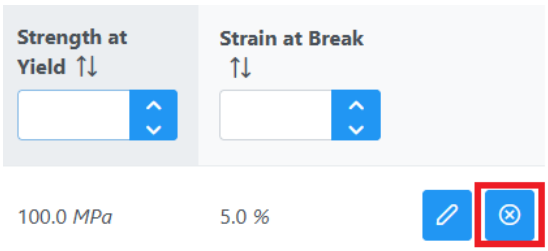

By pressing the button, the Dialog with the same functionality from the "Create Data" section will pop-up; but now showing the properties of the selected item. After editing the information, the changes can be again saved or discarding via the corresponding buttons.

To help find owned items, the "Show only owned" toggle can be selected, at the top of the view.




## 5.3 Delete Data

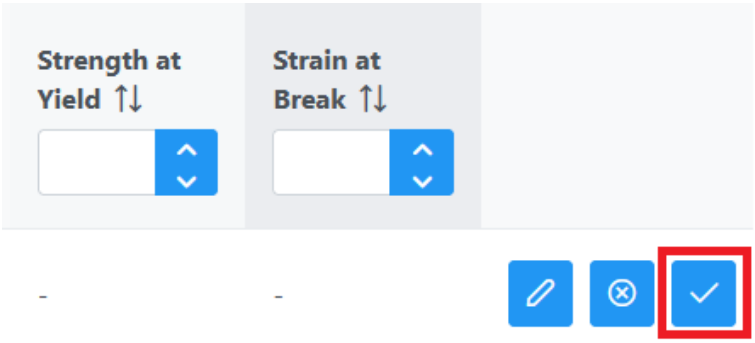
To delete any item (only admins and the item's owner can update or delete items) the delete button of the desired item needs to be selected. Afterwards, by confirming the delete process, the selected item is deleted.




If your created request was complete, please do not delete the request, but resolve it by following the steps in the next section.

## 5.4 Resolve Requests

If your created request was successfully resolved, please resolve the request rather than deleting it, so it can be used to improve the ranking. This can be done by pressing the resolve button at the right of your request.



# 6 Funding Information

The Matrix tool is funded by the Interreg North-West Europe program (Interreg NWE), project Di-Plast - Digital Circular Economy for the Plastics Industry (NWE729, https://www.nweurope.eu/projects/project-search/di-plast-digital-circular-economy-for-the-plastics-industry/). For more information visit the Di-Plast Knowledge Hub via: https://di-plast.sis.cs.uos.de/Wiki.jsp?page=Main