



Release notes

Release 29-03-2018



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1. Introduction

Madaster strives for a continuous flow of releases with improvements or added functionalities. With each release of the Madaster platform, changes take place, visible or invisible to the user. This document provides an overview of the changes within the Madaster Platform.

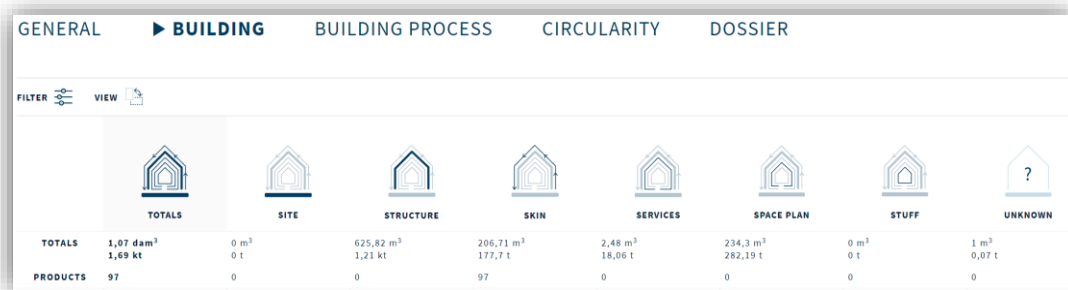
2. Building

2.1. Building tab

On the Building tab, several new functionalities have been added.

2.1.1. Insight in the number of products per building layer

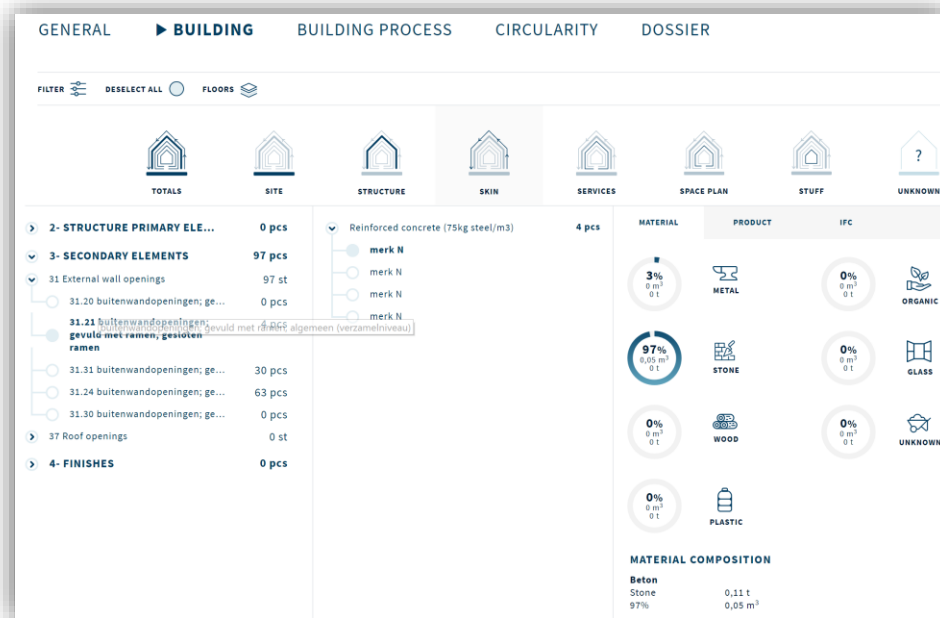
In addition to materials, this release extends the product functionality. In the Building tab it is directly visible how many products are applied in the complete building and its building layers (categorization of Stewart Brand).



| | TOTALS | SITE | STRUCTURE | SKIN | SERVICES | SPACE PLAN | STUFF | UNKNOWN |
|-----------------|----------------------------------|-------------------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|-------------------------|----------------------------|
| TOTALS | 1,07 dam ³ 1,69 kt | 0 m ³ 0 t | 625,82 m ³ 1,21 kt | 206,71 m ³ 177,7 t | 2,48 m ³ 18,06 t | 234,3 m ³ 282,19 t | 0 m ³ 0 t | 1 m ³ 0,07 t |
| PRODUCTS | 97 | 0 | 0 | 97 | 0 | 0 | 0 | 0 |

2.1.2. Insight in applied products per building layer

In the Building tab, the user has insight in the applied products within the building layers (categorization of Stewart Brand). By default, all products (and materials) are displayed in the Building tab. However, different filters can be applied to refine this overview.



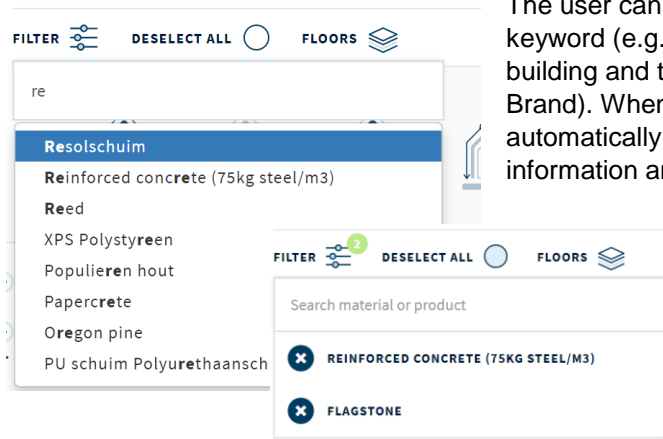
| | PRODUCTS | MATERIAL | PRODUCT | IFC |
|---|----------|--|---------|-----|
| 2- STRUCTURE PRIMARY ELE... | 0 pcs | Reinforced concrete (75kg steel/m ³) | 4 pcs | |
| 3- SECONDARY ELEMENTS | 97 pcs | | | |
| 31 External wall openings | 97 st | | | |
| 31.20 buitenwandopeningen; ge... | 0 pcs | | | |
| 31.21 buitenwandopeningen; gevuld met ramen, gesloten ramen | 0 pcs | | | |
| 31.31 buitenwandopeningen; ge... | 30 pcs | | | |
| 31.24 buitenwandopeningen; ge... | 63 pcs | | | |
| 31.30 buitenwandopeningen; ge... | 0 pcs | | | |
| 37 Roof openings | 0 st | | | |
| 4- FINISHES | 0 pcs | | | |

| MATERIAL | PRODUCT | IFC |
|-----------------------------------|---------|-------------------------------|
| 3% 0 m ³ 0 t | METAL | 0% 0 m ³ 0 t |
| 97% 0,05 m ³ 0 t | STONE | 0% 0 m ³ 0 t |
| 0% 0 m ³ 0 t | WOOD | 0% 0 m ³ 0 t |
| 0% 0 m ³ 0 t | PLASTIC | UNKNOWN |

| MATERIAL COMPOSITION | |
|----------------------|---------------------|
| Beton | |
| Stone | 0,11 t |
| 97% | 0,05 m ³ |

2.1.3. Filter Options Products

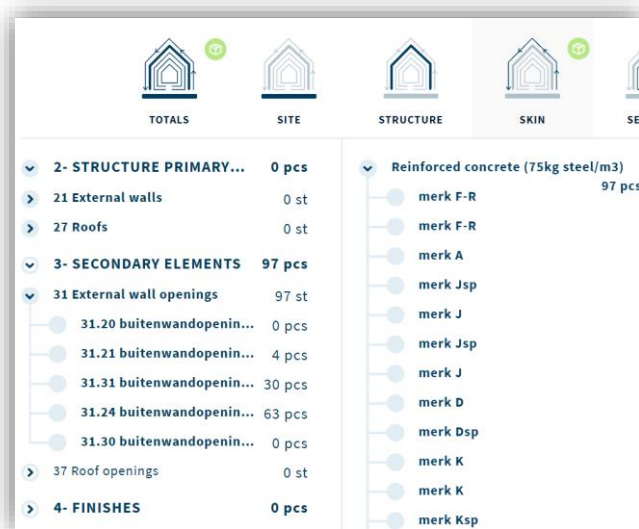
Keyword filtering



The user can now search the main level in the Building tab by keyword (e.g. luminaire, toilet, etc.) to applied products within a building and the building layers (categorization of Stewart Brand). When the user performs an active search, the system automatically adjusts the summary of the circles with material information and the number of products.

A keyword can be deleted by clicking on the cross icon in the search field before the keyword.

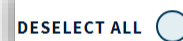
Filtering on NL-SfB encoding



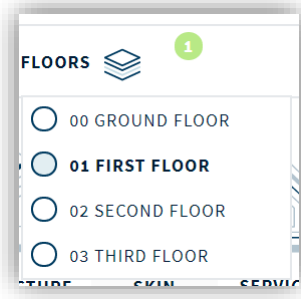
Within a specific building layer, the user can click (on the left side of the screen) through the available classification structure (based on the NL/SfB encoding) to the lowest level (filtering) to gain insight into available product information. Multiple filters can be applied at the same time.

Based on the applied filter(s), the relevant products are displayed in the center of the screen. There is also an option to make a selection of the products, which are subsequently shown on the Product Information tab (on the right side of the screen).

All filters can be reset by the 'Deselect all' function.



Filtering on floor level



Another filter option enables the user to filter on one or more building floors so that it becomes directly clear on which floor a product is located.

2.1.4. Detailed insight into product properties

When a product is selected, extended product information is displayed in 3 tabs:

1. Material tab
2. Product tab
3. IFC tab

Material tab

The Material tab displays an overview of materials that are present in the selected products. When selecting a single product, information about the material composition of this product is also shown.

Product tab

The Product tab shows relevant information about the selected product.

IFC Tab

The IFC tab displays a number of values of the product as present in the IFC file and used by the Madaster platform.



| MATERIAL | PRODUCT | IFC |
|-----------------|-------------------------------------|----------------|
| NAME | Reinforced concrete (75kg steel/m3) | TYPE |
| SUPPLIER | | Volume Product |

| MATERIAL | PRODUCT | IFC |
|---------------|------------------------|---------------------|
| HEIGHT | 1.79 m | WIDTH |
| | | 0.78 m |
| LENGTH | 0 m | VOLUME |
| | | 0.05 m ³ |
| AREA | 1.39 m ² | TYPE |
| | | R1 18 |
| ID | 3dRgtW3QbEsQYyv9xoJ71y | |

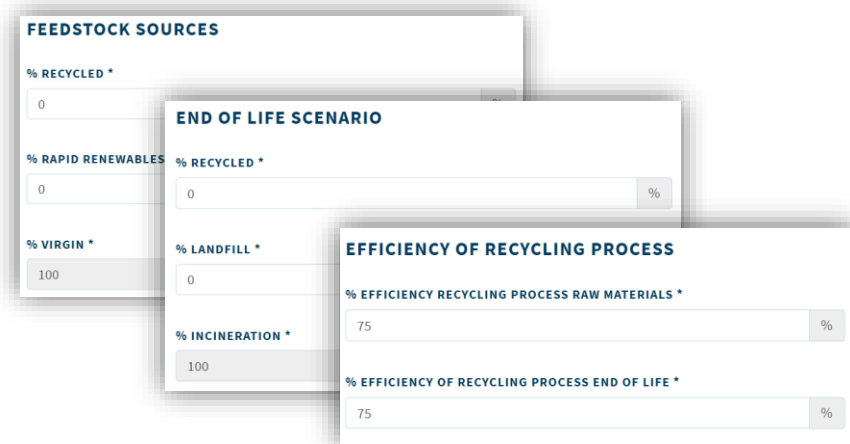
3. Administration - Add new material or product

3.1. New fields on material level

The number of fields and information elements that a user can add to a material has been extended. These expansions mainly focus on Feedstock sources, the End of Life scenario and the efficiency of the recycling process and will contribute to calculate the level of circularity of a building within the platform in the Circularity tab.

Three new components can be supplied with a material:

- **Feedstock sources:** breakdown %Recycled, %Rapid renewable sources and %New
- **End of Life scenario:** breakdown %Recycled, %Landfill and %Incineration
- **Efficiency of recycling process:** %efficiency recycling process raw materials and efficiency recycling process end of life



The image shows three overlapping form panels with the following fields:

- FEEDSTOCK SOURCES:**
 - % RECYCLED * (input: 0)
 - % RAPID RENEWABLES (input: 0)
 - % VIRGIN * (input: 100)
- END OF LIFE SCENARIO:**
 - % RECYCLED * (input: 0)
 - % LANDFILL * (input: 0)
 - % INCINERATION * (input: 100)
- EFFICIENCY OF RECYCLING PROCESS:**
 - % EFFICIENCY RECYCLING PROCESS RAW MATERIALS * (input: 75)
 - % EFFICIENCY OF RECYCLING PROCESS END OF LIFE * (input: 75)

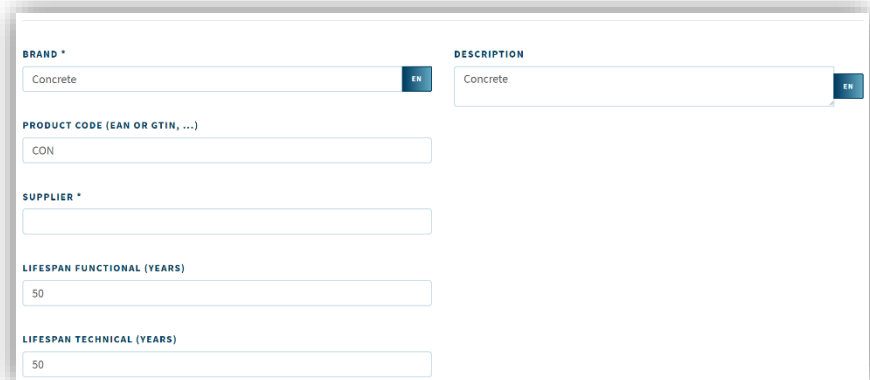
3.2. New fields on product level

New fields have also become available on a product level.

3.2.1. General fields

The general fields that are introduced on product level:

- Product Code
- Supplier
- Lifespan Functional
- Lifespan Technical



The image shows a product form with the following fields:

- BRAND *** (input: Concrete)
- DESCRIPTION** (input: Concrete)
- PRODUCT CODE (EAN OR GTIN, ...)** (input: CON)
- SUPPLIER *** (input:)
- LIFESPAN FUNCTIONAL (YEARS)** (input: 50)
- LIFESPAN TECHNICAL (YEARS)** (input: 50)

3.2.2. Circularity Fields

To calculate the level of circularity new fields have been added for Feedstock sources, End of Life scenario and Efficiency of recycling process.

Concerning the Feedstock sources, the system enables the user to set a product composition (in %) in terms of virgin material, reused material, recycled material and renewable material.

For the End of Life scenario of a product, the level of reuse (in %) is added and a short checklist is made available to indicate how easily the product can be detached/dismantled.

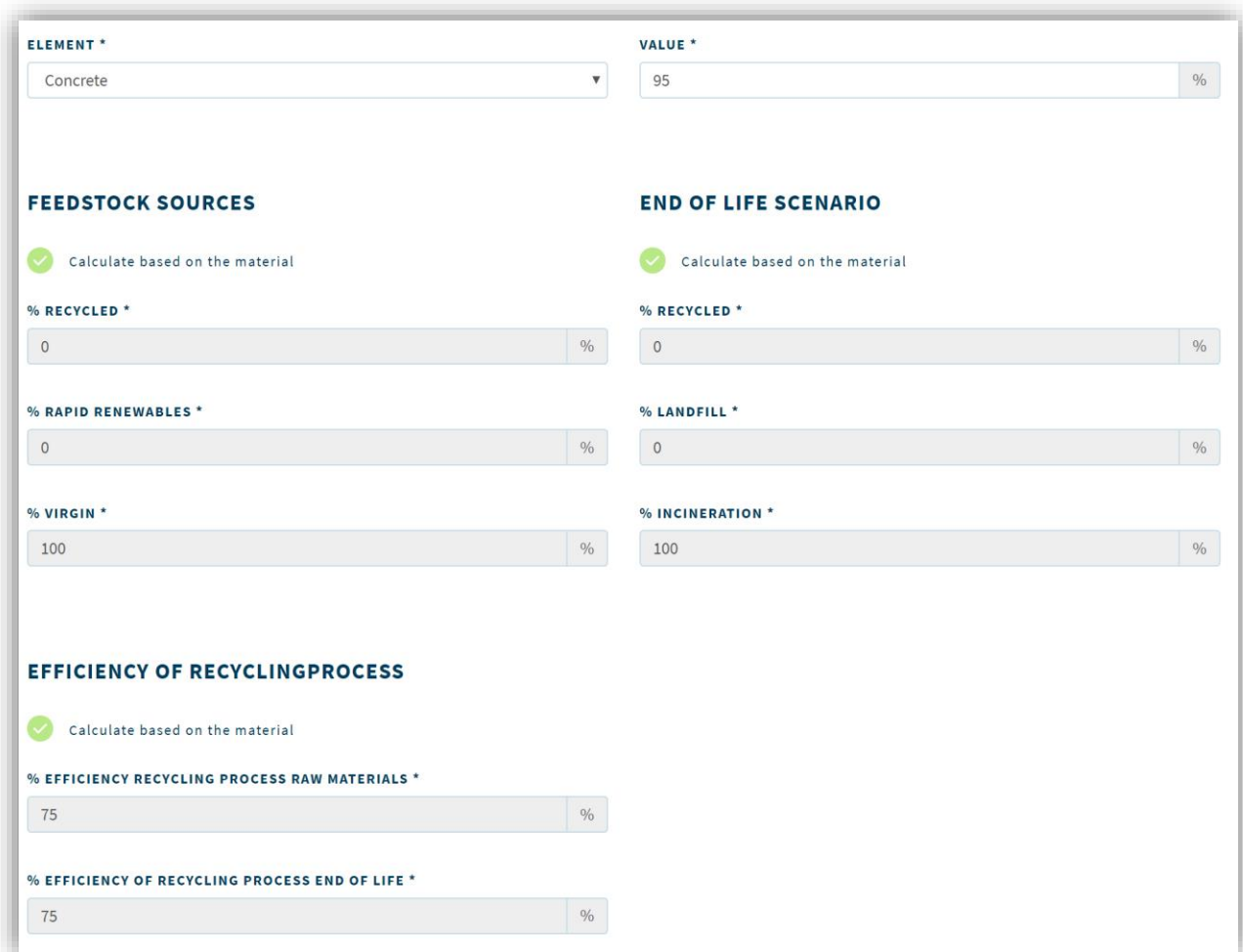
For the Efficiency of the recycling process the same values can be specified as with materials, being: % Efficiency Recycling process raw materials and % Efficiency Recycling process End of Life.

3.2.3. Product composition

It is now possible to specify a product composition in more detail. For example, a product may consist of a composition of other (sub)products or materials. When a new product has been added and stored, the product can be looked up and edited via Administration. Then the product composition can be specified on the product composition-tab.

In the field "Element" a (sub)product or material can be selected and can be specified how much, in percentage, the (sub) product or material is part of the product.

In addition, it can be determined by the user if the circular values should be calculated by using the values on the material (and thus be taken over) or are specified separately here.



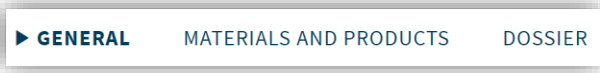
The screenshot displays a configuration interface for product composition. It is organized into several sections:

- ELEMENT ***: A dropdown menu showing "Concrete".
- VALUE ***: A text input field containing "95" with a percentage sign.
- FEEDSTOCK SOURCES**:
 - A checked checkbox "Calculate based on the material".
 - % RECYCLED ***: Input field with "0".
 - % RAPID RENEWABLES ***: Input field with "0".
 - % VIRGIN ***: Input field with "100".
- END OF LIFE SCENARIO**:
 - A checked checkbox "Calculate based on the material".
 - % RECYCLED ***: Input field with "0".
 - % LANDFILL ***: Input field with "0".
 - % INCINERATION ***: Input field with "100".
- EFFICIENCY OF RECYCLINGPROCESS**:
 - A checked checkbox "Calculate based on the material".
 - % EFFICIENCY RECYCLING PROCESS RAW MATERIALS ***: Input field with "75".
 - % EFFICIENCY OF RECYCLING PROCESS END OF LIFE ***: Input field with "75".

4. Portfolio

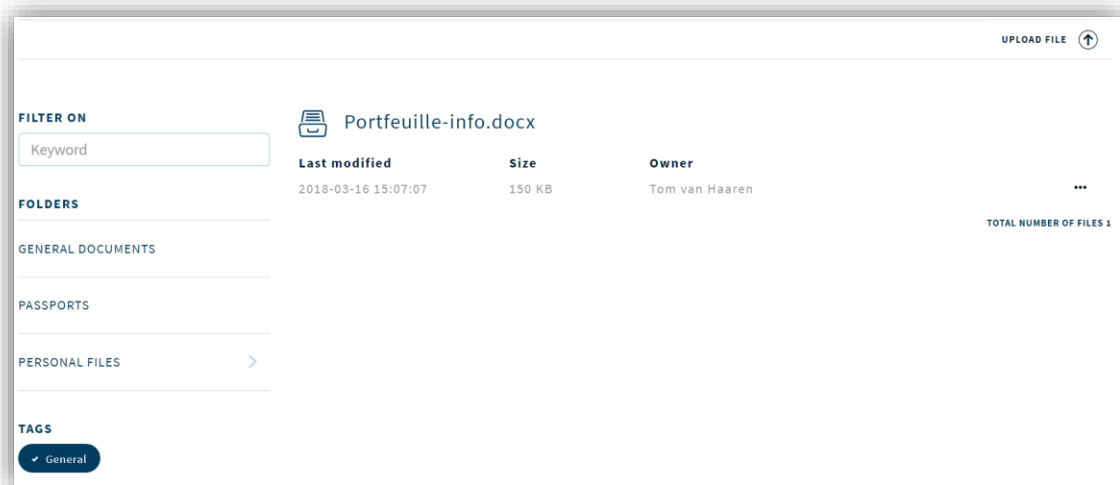
On portfolio level, two new tabs have been added, being: Materials and Products and Dossier on which the following new functionality is available:

- Dossier on Portfolio
- Materials and Products Aggregation for multiple buildings



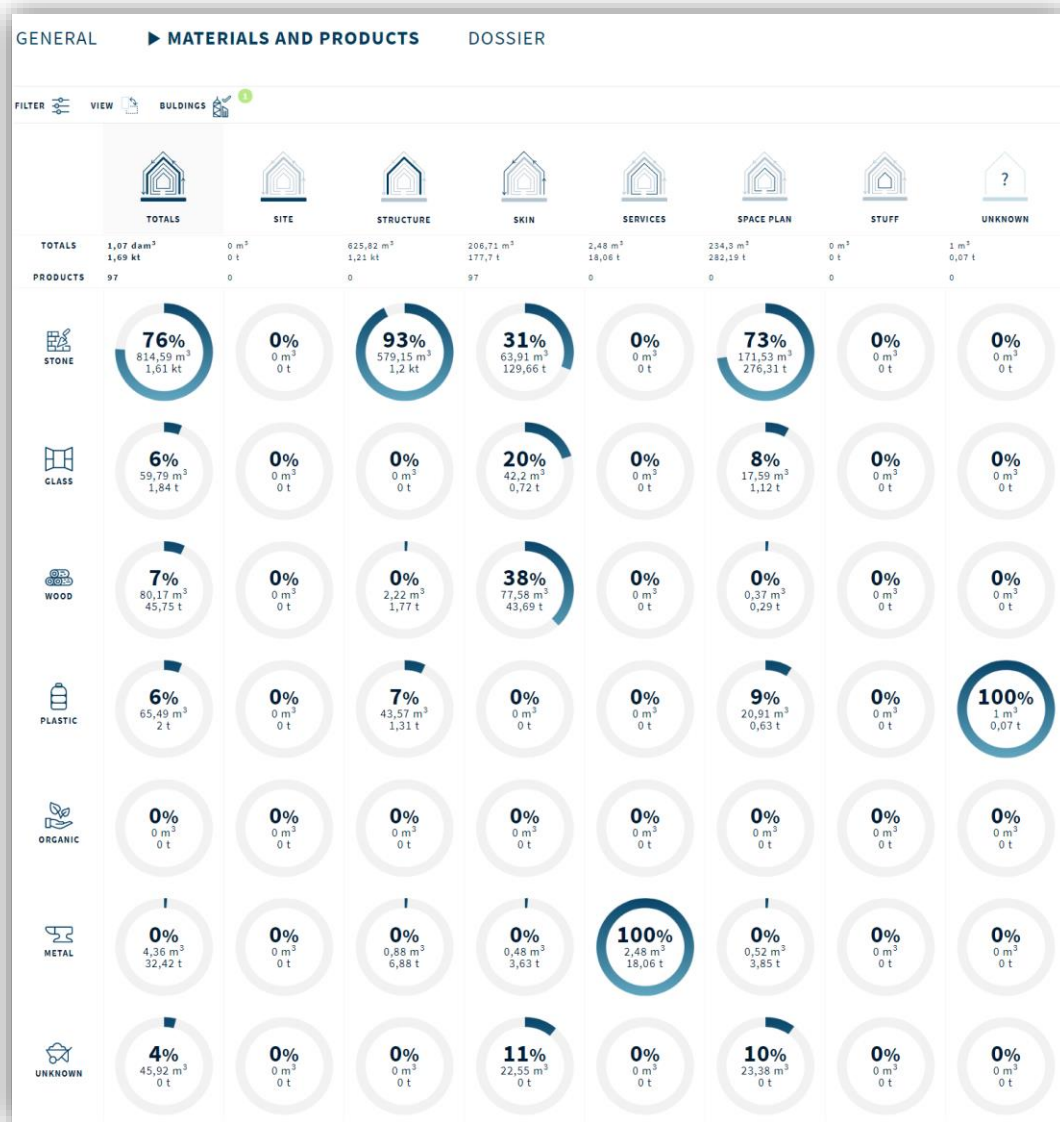
4.1. File functionality on a portfolio

Similar like the Dossier on building level, this functionality is also available on portfolio level. Relevant portfolio files can be easily stored, searched and shared. In addition to the availability of a default folder structure, the user can also organize and customize a personal folder structure as needed. Documents can also be tagged (provide documents with keywords) so that fast filtering can be applied in this way. Finally, it is possible to view and download documents or to modify the properties of the file.



4.2. Materials and products aggregation over buildings

On portfolio level, it is now possible to get an aggregated overview of the materials and products applied within a selection of underlying buildings.



What information is shown here?

The information shown in this table is based on the active source files that have been uploaded with the selected buildings. The table is divided vertically into seven material families. In addition to the subdivision in material families, a subdivision is made horizontally of the building layers (categorization of Stewart Brand).

The first column 'Totals', displays the percentage per material type used for these buildings. In addition to this percentage, the weight and volume are also visible per material type.

The remaining columns indicate per building layer which material has been used. In addition to this percentage, the weight and volume are also visible per material type.

If there is no NL-SfB encoding associated with an element in the source file, it will be placed in the 'Unknown' column. If no match has been made between the element and the Madaster Materials and Product database the material family is unknown. These elements are placed in the column 'unknown' below the 6 material families.

More information about the materials applied can be obtained by clicking on one of the circles. A new screen opens, explaining which materials and products are used. For example, the material 'stone' can be further specified in the materials 'concrete' and 'brick' and the product 'armed pillar' which again consists of 'brick'. The volume of each material is shown.

Filter and switch

A filter and a 'view switch' can be used in this overview. The filter option can be applied to display only specific materials in this table. Each of the search strings in the filter can be cancelled by clicking on the X icon. By clicking the 'view switch' the material families are positioned horizontally and the building layers vertically. This will allow you to see the same information in another overview.



5. Questions/Remarks

Did you notice anything not working properly while using the Madaster platform? Please inform us by contacting our service desk.

Email address : service@madaster.com
Phone number : 085-0657436