



# How to add products in Madaster

Process description for adding different  
product types in the Madaster Platform

**Voor**  
Madaster gebruikers

**Door**  
Madaster

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### DISCLAIMER

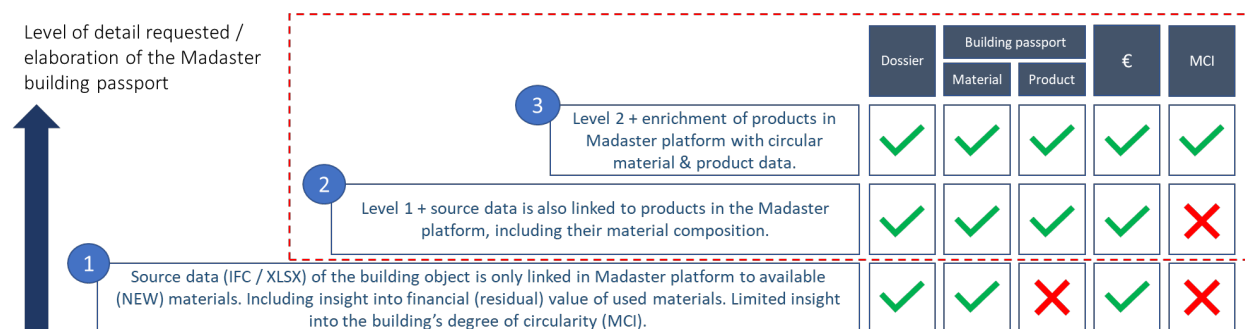
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## How to add products in Madaster

For a more accurate building passport in Madaster and the ability to provide insight into elements and their numbers, so that they can be reused at the highest possible level in the long term, it is recommended to link as many building elements as possible from a source file (IFC and / or Excel) to a 'product' in the Madaster database (in the manual 'Madaster Action plan' this is referred to as 'level 2').

To be able to link a building element to a product in the Madaster platform, the product must be available in the Madaster database. If this is not the case (which means that an element from the source file cannot be automatically linked), the Madaster platform offers the functionality to add products themselves, including their material composition.

In addition, adding products in Madaster also allows the user to add circular data (e.g. applied raw materials, recycled materials, etc.). Subsequently, the Madaster platform, by means of the Madaster Circularity Index, then provides insight into the degree of circularity of the entire building (in the manual 'Madaster Action plan' this is referred to as 'level 3').

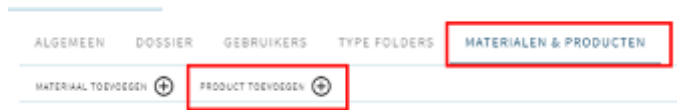


Picture 1: Elaboration levels of the Madaster building passport

By adding products, a private product library is built up by the user on account level in the Madaster platform (this in addition to the generic "Madaster" data set available to everyone). This library remains available and can then be applied again when registering every successive building in Madaster.

In Madaster a distinction is made between four different types of products, namely: volume, area, length & Quantity products. The choice for one of these types depends primarily on the available geometric data of the relevant building element in the source file. This means that if, for example, the volume of a building element is included in the source file (IFC and Excel), it is best to set up a so-called 'volume' product in Madaster. If a building element in the source file does not contain volume information, but does contain area (m<sup>2</sup>) information, it is best to select an 'area' product in Madaster. Etc. Ideally, "volume" products are used as much as possible, because the Madaster system mainly displays this unit in its "Building" tab. However, it is also possible to work towards this unit using area and / or length products.

All product types in Madaster can be added (and changed) by the user via the main menu "Administration" and then by clicking the button "Add product".



Picture 2: Administration (add product)

FYI: Products can be added to the Madaster platform at any time; i.e. before or after the source data (IFC / Excel) of the building in Madaster has been uploaded. To automatically link as many building elements from the source data to newly added products, it is recommended to first add the products in Madaster and then upload the source file in Madaster. If a source file is already uploaded in Madaster, then after all products have been added in Madaster, the source file must simply be enriched again (via: Dossier> "View details" button > "Enrich again" button).

Below, it is first described per product type how a product is added to Madaster ("level 2"). Where circular information ("level 3") is added to the product, this has been indicated by means of the text: **[level 3]**.

The following chapters describe how newly added products are linked; in an automatic and manual way. In addition, it is briefly explained how comparable products can be easily copied. Finally, it is described how self-added products can be activated and deactivated in Madaster.

## Add Volume product (level 2 & 3)

This section describes how to add a "volume" product to Madaster. First, the minimum input to add this product is considered. Then it is described step by step how this type of product is added in Madaster ("level 2"). It also considers additional optional fields.

### Minimum requirements to set up this type of product in Madaster:

- Building elements in the source file (IFC and Excel), for which a volume product is set up in Madaster, must actually contain volume information.
- (Brand) Name / description of the product to be set up.
- Use of raw materials (% ratio of new product vs. being reused).
- Product composition (in % used materials).

### Add Volume product in Madaster:

1. In the menu "Administration" click on the "Add product" button (see picture 2 on the previous page). A new product screen (with tab 'Product information') is displayed (see picture 1).



Picture 1: New product

2. Enter the Brand / name of the new product to be added in the (mandatory) "Brand \*" field. For example: "UNIDEK SIPS PANELS 250 MM".

Suggestion: If the brand / name of an element in the source file (IFC / Excel) is unique, consider giving the new product to be added in Madaster the exact same name / description. By including this exact name / description also in the product's tab 'Search criteria', the Madaster system will automatically link the element to the newly added Madaster product.

3. In the field "Type \*" (mandatory) select "Volume".



Picture 2: Product type: Volume

4. If available, enter a description of the new product in the "Description" field (optional).
5. If available, enter a product code of the new product to be added in the "Product code (EAN or GTIN, ...)" field (optional).

## Matching op EAN/G-TIN

Indien op een product de productcode is gevuld:

### WADAL VERLOOP

► PRODUCTINFORMATIE   PRODUCTSAMENSTELLING   ZOEKCRITERIA

WERKNAAM \* Nederlands ▾ BESCHRIJVING

Wadal Verloop

PRODUCTCODE (EAN OF GTIN, ...)

87124886757

LEVERANCIER \*

Wadit

Dan wordt het materiaal op het element ook tegen deze code gematched en indien er een exacte match gevonden wordt zal deze worden gehanteerd boven de eerdere matches.

Picture 3: Product code

6. If available, enter the name of the supplier / producer of the product to be added in the "Supplier" field (optional).
7. **[level 3]** If available, enter the functional lifespan of the product to be added in the field "Functional lifespan (years)" (optional).
8. **[level 3]** If available, enter the technical lifespan of the product to be added in the field "Technical lifespan (years)" (optional).
9. If available, select ("yes", "no" or "unknown") in the "Toxicity" field (optional) if the product contains materials that are on the [cradle-to-cradle list of banned chemicals](#).
10. By default, the volume unit of a "volume" product should be set to 1m<sup>3</sup>. When processing an element from the source file (IFC / Excel), the Madaster system will take the initial volume metric of the element (calculation method: volume element source file multiplied by 1m<sup>3</sup>).

Het standaard volume van dit volumeproduct

☐ Geef deze grootte op per dimensie

Het standaard volume van dit volumeproduct

1

m<sup>3</sup>

Picture 4: Volume unit

11. Click on the "Save" button. The data entered is now saved in the product sheet "Product information". At the same time, the other tabs of the product are now visible.

## UNIDEK SIPS

► PRODUCT INFORMATION

BILL OF MATERIALS

DOSSIER

SEARCH CRITERIA

FINANCIAL

EXTERNAL SOURCES

Picture 5: Product sheets

12. **[level 3]** If available, insert the field 'Feedstock sources' (optional field) on the left hand: % reused vs. % virgin product. If unknown, select 100% virgin.

- "Reused" here means that the product (in this example: Unidek sips panel) has already gone through a full life cycle at the same level (product) and is now being reused again in the construction of a new building.
- "Virgin" here means that the product (in this example: Unidek sips panel) has never been used in the processing of another building and is delivered as new by the supplier.

### GEBRUIK VAN GRONDSTOFFEN

Is Hergebruikt

0

0 % RECYCLED

0 % SNIEL HERNIEUWBARE BRONNEN

100 % NIEUW

Picture 6: Feedstock sources

**Note:** the percentages in the fields "recycled" and "% rapid renewables" (on the right hand side) cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

13. **[level 3]** If available, select one or more options in the "End of life scenario Checklist reusability" field (optional field), which indicate the degree of disassembly of the new product to be added. Selected values are shown in green colour (check mark).

### AFVALSCENARIO

#### CHECKLIST HERGEBRUIK

- ☒ De bevestigingen zijn toegankelijk en het product kan verwijderd worden zonder andere delen van het gebouw te beschadigen
- ☐ Het product kan gedemonteerd worden met standaard (hand) gereedschap zonder het product, of producten die aan het product zijn bevestigd, te beschadigen
- ☐ De bevestigingen en montage methode van het product zijn gestandaardiseerd en voorgefabriceerd

Picture 7: End of life scenario: checklist reusability

**Note:** The field "% reuse" (on the right hand side; see picture 7) cannot be entered here. This field is automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.



0 % HERGEBRUIKT  
0 % RECYCLED  
0 % STORT  
100 % VERBRANDING

Picture 8: End of life scenario

**Note:** the percentages in the fields "recycled", "% landfill" and "% incineration" cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

14. **[level 3]** If desired, change the value of the "% efficiency recycling process raw materials" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**
15. **[level 3]** If desired, change the value of the "% efficiency recycling process End of Life" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**

#### EFFICIËNTIE VAN RECYCLINGPROCES

% Efficiëntie recycling proces grondstoffen

75

% Efficiëntie recycling proces einde levensduur

75

Picture 9: Efficiency recycling process

16. Click on the "save" button. The entered data is now saved in the product sheet "Product information".
17. Click on the second tab "Bill of Materials" and then click on the "Add" button. The fields "Element \*" and "Number \*" are displayed.

#### UNIDEK SIPs PANELEN 250 MM



PRODUCTINFORMATIE **PRODUCTSAMENSTELLING** ZOEKRITERIA DOSSIER FINANCIËL

TOEVOEGEN

Naam	Type	Waarde	% Recycled	% deel herbruikbaar bronnen
------	------	--------	------------	-----------------------------

Picture 10: Bill of Materials

18. Click the button "Pick element \*" (required field) and then select a material from the Madaster database or the user's "own material library".



## TOEVOEGEN

Element

Picture 11: Pick element


- Then fill in the field "Number \*" (mandatory field) with the percentage (between 1 and 100%) of the selected material.

Aantal  %

Picture 12: Material ratio

- Click the "save" button (at the bottom of the page). The entered data is now stored in the "Bill of Materials" product sheet.
- If the new product to be added consists of several materials, repeat steps 19 to 21 until the material composition is 100%.

## UNIDEK SIPS PANELEN 250 MM

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIEEL
TOEVOEGEN 				
Naam	Type	Waarde	% Recycled	% Best Services/ware Breuses
EPS Polystyreen	Materiaal	90,46%	0%	0%
Spaanplaat	Materiaal	9,54%	0%	0%

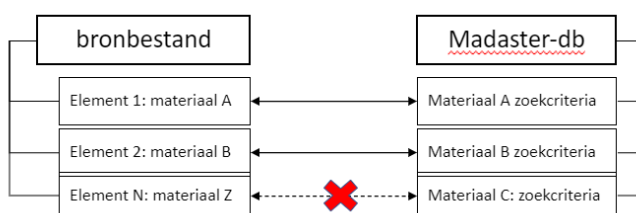
Picture 13: Product with material ratio (example)

- Click on the third sheet 'Dossier' and then click on the button 'Upload file'. Here, relevant building files (e.g. product certificates, etc.) can be linked to the product to be added.
- Click on the "..." button to select the file to be added (e.g. product certificates, etc.).
- Select the destination folder in the Madaster Dossier, in which the file to be added (e.g. product certificates, etc.) is saved.
- If desired, add "tags" (keywords), which will facilitate the search for this file to be added in the file in Madaster.
- Finally click on the "Upload" button. The selected file (eg product certificates, etc.) is added and is visible in this tab.
- Click on the third sheet "Search criteria" and then click on the "Add criterion" button. Here, one or more search criteria can be added, which enable the Madaster system to automatically link elements from the source file (IFC and / or Excel) of the building to be read to this new product to be added.

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIEEL
CRITERIUM TOEVOEGEN (+)				
Zoekcriterium		Matchingstype		
buitenwand SIPs 250mm		Bevat		

Picture 14: Search Criteria

**Note:** When importing a source file (IFC and / or Excel), the materials of each element are validated against these search criteria. This examines whether the material of an element matches one of the search criteria at product / material level.



Picture 15: Matching of element (from source file) to added product in Madaster database (draft view).

A search criteria can be set up in different ways:

- Contains the search criterion
- Equals the search criterion
- Starts with the search criterion
- Ends with the search criterion

If multiple matches are found, the largest match (largest number of matching characters) will be used.

If the material of an element matches one of the search criteria at product / material level, the Madaster system will automatically link the element. If no automatic linking takes place, the user can manually link the element in Madaster (in sub step "Enrich").

28. Add one or more search criteria (optional field) to this new product to be added, so that the Madaster platform can automatically link this product to a corresponding element from a source file (IFC / Excel).  
Note: To do this, the user's "own" product library must be selected as a data set when uploading and / or when enriching the source data again.

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIEEL
CRITERIUM TOEVOEGEN (+)				
Zoekcriterium		Matchingstype		
buitenwand SIPs 250mm		Bevat		

Picture 16: Search Criteria (example)

29. Return to the first sheet "Product information". Scroll down and finally click on the "save" button. The entered data is stored, with which the self-added 'volume' product is stored in the user's 'own' product library.
30. If desired, multiple files can be added in the product Dossier sheet.



Picture 17: Product Dossier

31. Then go back to the first tab 'Product information'. Scroll down and finally click on the 'save' button. The entered data is saved with which the self-added 'volume' product is stored in the 'own' product library.

## Add Area product (level 2 & 3)

This section describes how to add an "area" product to Madaster. First, the minimum input to add this product is considered. Then it is described step by step how this type of product is added in Madaster ("level 2"). It also considers additional optional fields.

Minimum requirements to set up this type of product in Madaster:

- Building elements in the source file (IFC and Excel), for which an Area product is set up in Madaster, must actually contain area (m<sup>2</sup>) information.
- (Brand) Name / description of the product to be set up.
- Use of raw materials (% ratio of new product vs. being reused).
- Product composition (in m<sup>3</sup>/m<sup>2</sup> used materials).

Add Area product in Madaster:

1. In the menu "Administration" click on the "Add product" button. A new product screen (with sheet 'Product information') is displayed (see picture 1).



Picture 1: New product

2. Type the brand / name of the new product to be added in the "Brand name \*" (mandatory field) field.  
For example: "GYPROC GF 100 RD / 1.75.1.A".

Suggestion: If the name / description of an element in the source file (IFC / Excel) is unique, consider giving the new product to be added in Madaster the exact same name / description. By including this exact name / description in the product tab 'Search criteria' in this product, the Madaster system will automatically link the element to the Madaster product.

3. In the field "Type \*" product (mandatory field) select "Area".



Picture 2: Product type: Area

4. If available, enter a description of the new product to be added in the "Description" field (optional field).
5. If available, enter a product code of the new product to be added in the "Product code (EAN or GTIN, ...)" (optional field) field.

## Matching op EAN/G-TIN

Indien op een product de productcode is gevuld:

### WADAL VERLOOP

► PRODUCTINFORMATIE   PRODUCTSAMENSTELLING   ZOEKCRITERIA

WERKNAAM \* Nederlands ▼ BESCHRIJVING

Wadal Verloop

PRODUCTCODE (EAN OF GTIN, ...)

8712248066757

LEVERANCIER \*

Wavin

Dan wordt het materiaal op het element ook tegen deze code gematched en indien er een exacte match gevonden wordt zal deze worden gehanteerd boven de eerdere matches.

Picture 3: Product code

6. If available, enter the name of the supplier / producer of the new product to be added in the "Supplier" field (optional field).
7. **[level 3]** If available, enter the functional lifespan of the product to be added in the field "Functional lifespan (years)" (optional).
8. **[level 3]** If available, enter the technical lifespan of the product to be added in the field "Technical lifespan (years)" (optional).
9. If available, select ("yes", "no" or "unknown") in the "Toxicity" field (optional) if the product contains materials that are on the [cradle-to-cradle list of banned chemicals](#).
10. By default, the unit of an "Area" product must be set to 1m<sup>2</sup>. When linking the element from the source file (IFC / Excel), the Madaster system will take the initial area metric of the element (calculation method: volume element source file multiplied by 1m<sup>2</sup>).

#### THE DEFAULT AREA OF THIS AREA PRODUCT

☐ SPECIFY THIS SIZE BY SEPARATING THE DIMENSIONS

1 m<sup>2</sup>

Picture 4: Area product unit

If the height of the new Area product is known, this can also be entered. This allows the Madaster system to calculate the (desired) volume, so that this data can also be displayed on the "Building" tab.

11. If available, enter the height (in meters) in the field "the average [height] of this area product" (optional).



De gemiddelde lengte van dit oppervlakteproduct\*

Hoogte m

---

De gemiddelde lengte van dit oppervlakteproduct

2,6 m

Picture 4: Area product: insert height (optional)

12. Click on the "save" button. The entered data is now saved in the product sheet "Product information". At the same time, the other sheets of the product are now visible.



PRODUCTINFORMATIE PRODUCTSAMENSTELLING ZOEKCRITERIA DOSSIER FINANCIËEL

Picture 5: Product sheets

13. Scroll down on the "product information" sheet.
14. **[level 3]** If available, insert the field 'Feedstock sources' (optional field) on the left hand: % reused vs. % virgin product. If unknown, select 100% virgin.
  - a. "Reused" here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has already gone through a full life cycle at the same level (product) and is now being reused again in the construction of a new building.
  - b. "Virgin" here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has never been used in the processing of another building and is delivered as new by the supplier.



**GEBRUIK VAN GRONDSTOFFEN**

Toegevoegd

0

0 % RECYCLED

0 % SNEL HERNIEUWBARE BRONNEN

100 % NIEUW

Picture 6: Feedstock sources

**Note:** the percentages in the fields "recycled" and "% rapid renewables" (on the right hand side) cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

15. **[level 3]** If available, select one or more options in the "End of life scenario Checklist reusability" field (optional field), which indicate the degree of disassembly of the new product to be added. Selected values are shown in green colour (check mark).

#### AFVALSCENARIO

##### CHECKLIST HERGEBRUIK

- ☒ De bevestigingen zijn toegankelijk en het product kan verwijderd worden zonder andere delen van het gebouw te beschadigen.
- ☐ Het product kan gedemonteerd worden met standaard (hand) gereedschap zonder het product, of producten die aan het product zijn bevestigd, te beschadigen.
- ☐ De bevestigingen en montage methode van het product zijn gestandaardiseerd en voorgefabriceerd.

Picture 7: End of life scenario: checklist reusability

**Note:** The field "% reuse" (on the right hand side; see picture 7) cannot be entered here. This field is automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

0 % HERGEBRUIKT

0 % RECYCLED

0 % STORT

100 % VERBRANDING

Picture 8: End of life scenario

**Note:** the percentages in the fields "recycled", "% landfill" and "% incineration" cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

16. **[level 3]** If desired, change the value of the "% efficiency recycling process raw materials" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**
17. **[level 3]** If desired, change the value of the "% efficiency recycling process End of Life" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**

#### EFFICIËNTIE VAN RECYCLINGPROCES

% Efficiëntie recycling proces grondstoffen

75

% Efficiëntie recycling proces einde levensduur

75

Picture 9: Efficiency recycling process

18. Click on the "save" button. The entered data is now saved in the product sheet "Product information".
19. Click on the second tab "Bill of Materials" and then click on the "Add" button. The fields "Element \*" and "Number \*" are displayed.



Picture 10: Bill of Materials

20. Click the button "Pick element \*" (required field) and then select a material from the Madaster database or the user's "own material library".



Picture 11: Pick element

21. Fill in the field 'Number \*' (mandatory field), expressed in cubic meters (m3) per square meter (m2) of the selected material.



Picture 12: Material ratio

22. Click on the "save" button (at the bottom of the page). The entered data is now stored in the "Bill of Materials" product sheet.
23. If the new Area product consists of several materials, repeat steps 19 to 21.

**GYPROC GF 100 RD/1.75.1.A**



Naam	Type	Waarde	% Recycled	% Steel/vermeerdere bronnen
Aluminium	Materiaal	0.002m³/m²	0%	0%
Gipsplaat	Materiaal	0.025m³/m²	0%	0%
Glaswolgevel 50	Materiaal	0.075m³/m²	0%	0%

Picture 13: Product with material ratio (example)

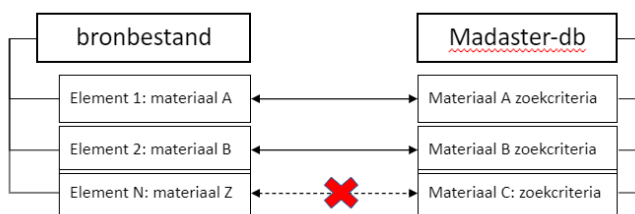


24. Click on the third sheet "Search criteria" and then click on the "Add criterion" button. Here, one or more search criteria can be added, which enable the Madaster system to automatically link elements from the source file (IFC and / or Excel) of the building to be read to this new product to be added.



Picture 14: Search Criteria

**Note:** When importing a source file (IFC and / or Excel), the materials of each element are validated against these search criteria. This examines whether the material of an element matches one of the search criteria at product / material level.



Picture 15: Matching of element (from source file) to added product in Madaster database (draft view).

A search criteria can be set up in different ways:

- Contains the search criterion
- Equals the search criterion
- Starts with the search criterion
- Ends with the search criterion

If multiple matches are found, the largest match (largest number of matching characters) will be used.

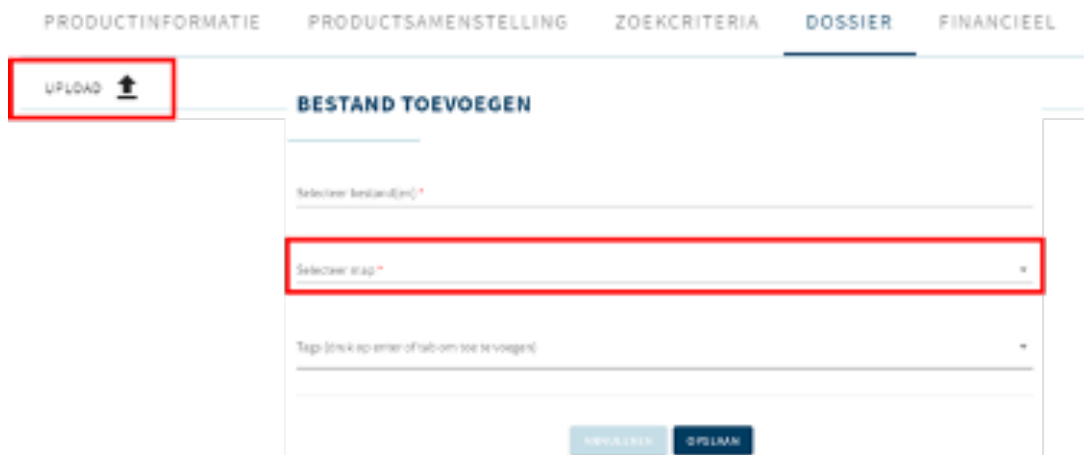
If the material of an element matches one of the search criteria at product / material level, the Madaster system will automatically link the element. If no automatic linking takes place, the user can manually link the element in Madaster (in sub step "Enrich").

25. Add one or more search criteria (optional field) to this new product to be added, so that the Madaster platform can automatically link this product to a corresponding element from a source file (IFC / Excel).  
Note: To do this, the user's "own" product library must be selected as a data set when uploading and / or when enriching the source data again.



Picture 16: Search Criteria (example)

26. Click on the fourth sheet "Dossier" and then click on the button "Upload file". At this location, relevant files (e.g. product certificates, etc.) can be linked to the product to be added.
27. Click on the "..." button to select the file to be added (e.g. product certificates, etc.).
28. Select the destination folder in the Madaster Dossier, in which the file to be added (e.g. product certificates, etc.) is saved.
29. If desired, add "tags" (keywords), which will facilitate the search for this file to be added in the file in Madaster.
30. Finally click on the "Upload" button. The selected file (e.g. product certificates, etc.) is added and is visible in this tab.
31. If desired, multiple files can be added in the product Dossier sheet.



Picture 17: Product Dossier

Return to the first sheet "Product information". Scroll down and finally click the "save" button. The entered data is stored and the 'Area' product is added to the user's 'own' product library.

## Add Length product (level 2 & 3)

This section describes how to add an "length" product to Madaster. First, the minimum input to add this product is considered. Then it is described step by step how this type of product is added in Madaster ("level 2"). It also considers additional optional fields.

### Minimum requirements to set up this type of product in Madaster:

- Building elements in the source file (IFC and Excel), for which an Area product is set up in Madaster, must actually contain area (m<sup>2</sup>) information.
- (Brand) Name / description of the product to be set up.
- Use of raw materials (% ratio of new product vs. being reused).
- Product composition (in m<sup>3</sup>/m used materials).

### Add Length product in Madaster:

1. In the menu "Administration" click on the "Add product" button. A new product screen (with sheet 'Product information') is displayed (see picture 1).



Picture 1: New product

2. Type the brand / name of the new product to be added in the "Brand name \*" (mandatory field) field. For example: "Aanrijdbeveiliging vangrail staal 4000 x 310 x 710 mm (lxbxh)".

Suggestion: If the name / description of an element in the source file (IFC / Excel) is unique, consider giving the new product to be added in Madaster the exact same name / description. By including this exact name / description in the product tab 'Search criteria' in this product, the Madaster system will automatically link the element to the Madaster product.

3. In the field "Type \*" product (mandatory field) select "Length".



Picture 2: Product type: Length

4. If available, enter a description of the new product to be added in the "Description" field (optional field).

- If available, enter a product code of the new product to be added in the "Product code (EAN or GTIN, ...)" (optional field) field.

Matching op EAN/G-TIN  
Indien op een product de productcode is gevuld:

**WADAL VERLOOP**

► PRODUCTINFORMATIE   PRODUCTSAMENSTELLING   ZOEKCRITERIA

WERKZAAM \* Nederlands BESCHRIJFEN

Wadal Verloop

PRODUCTCODE (EAN OF GTIN, ...)

871224806757

LEVERANCIER \*

Wavin

Dan wordt het materiaal op het element ook tegen deze code gematched en indien er een exacte match gevonden wordt zal deze worden gehanteerd boven de eerdere matches.

Picture 3: Product code

- If available, enter the name of the supplier / producer of the new product to be added in the "Supplier" field (optional field).
- [level 3]** If available, enter the functional lifespan of the product to be added in the field "Functional lifespan (years)" (optional).
- [level 3]** If available, enter the technical lifespan of the product to be added in the field "Technical lifespan (years)" (optional).
- If available, select ("yes", "no" or "unknown") in the "Toxicity" field (optional) if the product contains materials that are on the [cradle-to-cradle list of banned chemicals](#).
- By default, the unit of a "Length" product must be set to 1m. When linking the element from the source file (IFC / Excel), the Madaster system will take the initial area metric of the element (calculation method: volume element source file multiplied by 1m).

THE DEFAULT SIZE OF THIS LENGTH PRODUCT \*

Length

1 m

Picture 4: Area product unit

If known, the width and height of the new product to be added can also be entered. This allows the Madaster system to calculate the (desired) volume, so that this data can also be displayed on the "Building" tab. Select the radio button "SPECIFY THIS SIZE THE DIMENSION".

11. If available, enter the Width and Height (in meters) in the field "the average [area] of this length product" (optional).

Het gemiddelde oppervlakte van dit lengteproduct

☒ Geef deze grootte op per dimensie

Dimensietype	Dimensietype
Breedte	Hoogte
Eenheid dimensie	Eenheid dimensie
0,31 m	0,71 m

Picture 5: Area product: insert height (optional)

12. Click on the "save" button. The entered data is now saved in the product sheet "Product information". At the same time, the other sheets of the product are now visible.

PRODUCTINFORMATIE | PRODUCTSAMENSTELLING | ZOEKCRITERIA | DOSSIER | FINANCIËEL

Picture 6: Product sheets

13. Scroll down on the "product information" sheet.
14. **[level 3]** If available, insert the field 'Feedstock sources' (optional field) on the left hand: % reused vs. % virgin product. If unknown, select 100% virgin.
  - a. "Reused" here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has already gone through a full life cycle at the same level (product) and is now being reused again in the construction of a new building.
  - b. "Virgin" here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has never been used in the processing of another building and is delivered as new by the supplier.

**GEBRUIK VAN GRONDSTOFFEN**

% hergebruikt

0 % RECYCLED

0 % SNEL HERNIEUWBARE BRONNEN

100 % NIEUW

Picture 7: Feedstock sources

**Note:** the percentages in the fields "recycled" and "% rapid renewables" (on the right hand side) cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

15. **[level 3]** If available, select one or more options in the "End of life scenario Checklist reusability" field (optional field), which indicate the degree of disassembly of the new product to be added. Selected values are shown in green colour (check mark).

#### AFVALSCENARIO

##### CHECKLIST HERGEBUIC

- ☒ De bevestigingen zijn toegankelijk en het product kan verwijderd worden zonder andere delen van het gebouw te beschadigen
- ☐ Het product kan gedemonteerd worden met standaard (hand) gereedschap zonder het product, of producten die aan het product zijn bevestigd, te beschadigen
- ☐ De bevestigingen en montage methode van het product zijn gestandaardiseerd en voorgefabriceerd

Picture 8: End of life scenario: checklist reusability

**Note:** The field "% reuse" (on the right hand side; see picture 7) cannot be entered here. This field is automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.



Picture 9: End of life scenario

**Note:** the percentages in the fields "recycled", "% landfill" and "% incineration" cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

16. **[level 3]** If desired, change the value of the "% efficiency recycling process raw materials" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**
17. **[level 3]** If desired, change the value of the "% efficiency recycling process End of Life" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**

#### EFFICIËNTIE VAN RECYCLINGPROCES

% Efficiëntie recycling proces grondstoffen

75

% Efficiëntie recycling proces einde levensduur

75

Picture 10: Efficiency recycling process

18. Click on the "save" button. The entered data is now saved in the product sheet "Product information".
19. Click on the second sheet "Bill of Materials" and then click on the "Add" button. The fields "Element \*" and "Number \*" are displayed.



Picture 11: Bill of Materials

20. Click the button "Pick element \*" (required field) and then select a material from the Madaster database or the user's "own material library".



Picture 12: Pick element

21. Fill in the field 'Number \*' (mandatory field), expressed in volume ( $m^3$ ) of the selected material.



Picture 13: Material ratio

22. Click on the "save" button (at the bottom of the page). The entered data is now stored in the "Bill of Materials" product sheet.
23. If the new length product consists of several materials, repeat steps 19 to 21.



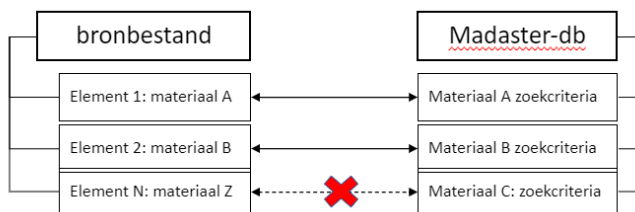
Picture 14: Product with material ratio (example)

24. Click on the third sheet "Search criteria" and then click on the "Add criterion" button. Here, one or more search criteria can be added, which enable the Madaster system to automatically link elements from the source file (IFC and / or Excel) of the building to this new product to be added.



Picture 15: Search Criteria

**Note:** When importing a source file (IFC and / or Excel), the materials of each element are validated against these search criteria. This examines whether the material of an element matches one of the search criteria at product / material level.



Picture 16: Matching of element (from source file) to added product in Madaster database (draft view).

A search criteria can be set up in different ways:

- Contains the search criterion
- Equals the search criterion
- Starts with the search criterion
- Ends with the search criterion


If multiple matches are found, the largest match (largest number of matching characters) will be used.

If the material of an element matches one of the search criteria at product / material level, the Madaster system will automatically link the element. If no automatic linking takes place, the user can manually link the element in Madaster (in sub step "Enrich").

25. Add one or more search criteria (optional field) to this new product to be added, so that the Madaster platform can automatically link this product to a corresponding element from a source file (IFC / Excel). Note: To do this, the user's "own" product library must be selected as a data set when uploading and / or when enriching the source data again.
26. Click on the third sheet "Dossier" and then click on the button "Upload file". At this location, relevant files (e.g. product certificates, etc.) can be linked to the product to be added.
27. Click on the "..." button to select the file to be added (e.g. product certificates, etc.).
28. Select the destination folder in the Madaster Dossier, in which the file to be added (e.g. product certificates, etc.) is saved.



29. If desired, add "tags" (keywords), which will facilitate the search for this file to be added in the file in Madaster.
30. Finally click on the "Upload" button. The selected file (e.g. product certificates, etc.) is added and is visible in this sheet.
31. If desired, multiple files can be added in the product Dossier sheet.



The screenshot shows the 'DOSSIER' tab in the Madaster interface. The 'UPLOAD' button, indicated by an upward arrow icon, is highlighted with a red box. Below it, the 'BESTAND TOEVOEGEN' form is visible. The first field, 'Selecteer bestand(en)', is also highlighted with a red box. Below this is a 'Selecteer tag' field, followed by a 'Tags (druk op enter of tab om toe te voegen)' field. At the bottom of the form are two buttons: 'TERUGKEEREN' and 'OPSLAAN'.

Picture 17: Product Dossier

Return to the first sheet "Product information". Scroll down and finally click the "save" button. The entered data is stored and the 'Length' product is added to the user's 'own' product library.

## Add Quantity product (level 2 & 3)

This section describes how to add a "quantity" product to Madaster. First, the minimum input to add this product is considered. Then it is described step by step how this type of product is added in Madaster ("level 2"). It also considers additional optional fields.

### Minimum requirements to set up this type of product in Madaster:

- Building elements in the source file (IFC and Excel), for which an Area product is set up in Madaster, must actually contain area (m<sup>2</sup>) information.
- (Brand) Name / description of the product to be set up.
- Use of raw materials (% ratio of new product vs. being reused).
- Product composition (in m<sup>3</sup> used materials).

### Add Quantity product in Madaster:

1. In the menu "Administration" click on the "Add product" button. A new product screen (with sheet 'Product information') is displayed (see picture 1).



Picture 1: New product

2. Type the brand / name of the new product to be added in the "Brand name \*" (mandatory field) field. For example: "GU-LICHTKOEPEL".

Suggestion: If the name / description of an element in the source file (IFC / Excel) is unique, consider giving the new product to be added in Madaster the exact same name / description. By including this exact name / description in the product tab 'Search criteria' in this product, the Madaster system will automatically link the element to the Madaster product.

3. In the field "Type \*" product (mandatory field) select "Quantity".



Picture 2: Product type: Quantity

4. If available, enter a description of the new product to be added in the "Description" field (optional field).

5. If available, enter a product code of the new product to be added in the "Product code (EAN or GTIN, ...)" (optional field) field.

Matching op EAN/G-TIN  
Indien op een product de productcode is gevuld:

**WADAL VERLOOP**

PRODUCTINFORMATIE    PRODUCTSAMENSTELLING    ZOEKCRITERIA

WADALVERLOOP \*    Wadaland    Wadaland

PRODUCTCODE (EAN OF GTIN, ...)

LEVERANCIER \*

Dan wordt het materiaal op het element ook tegen deze code gematched en indien er een exacte match gevonden wordt zal deze worden gehanteerd boven de eerdere matches.

Picture 3: Product code

6. If available, enter the name of the supplier / producer of the new product to be added in the "Supplier" field (optional field).
7. **[level 3]** If available, enter the functional lifespan of the product to be added in the field "Functional lifespan (years)" (optional).
8. **[level 3]** If available, enter the technical lifespan of the product to be added in the field "Technical lifespan (years)" (optional).
9. If available, select ("yes", "no" or "unknown") in the "Toxicity" field (optional) if the product contains materials that are on the [cradle-to-cradle list of banned chemicals](#).
10. Click on the "save" button. The entered data is now saved in the product sheet "Product information". At the same time, the other sheets of the product are now visible.

PRODUCTINFORMATIE    PRODUCTSAMENSTELLING    ZOEKCRITERIA    DOSSIER    FINANCIËEL

Picture 5: Product sheets

11. Scroll down on the "product information" sheet.
12. **[level 3]** If available, insert the field 'Feedstock sources' (optional field) on the left hand: % reused vs. % virgin product. If unknown, select 100% virgin.
  - c. **"Reused"** here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has already gone through a full life cycle at the same level (product) and is now being reused again in the construction of a new building.

- d. "Virgin" here means that the product (in this example: Gyproc GF 100 RD/1.75.1.A) has never been used in the processing of another building and is delivered as new by the supplier.



Picture 6: Feedstock sources

**Note:** the percentages in the fields "recycled" and "% rapid renewables" (on the right hand side) cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

13. **[level 3]** If available, select one or more options in the "End of life scenario Checklist reusability" field (optional field), which indicate the degree of disassembly of the new product to be added. Selected values are shown in green colour (check mark).



Picture 7: End of life scenario: checklist reusability

**Note:** The field "% reuse" (on the right hand side; see picture 7) cannot be entered here. This field is automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.



Picture 8: End of life scenario

Note: the percentages in the fields "recycled", "% landfill" and "% incineration" cannot be entered here. These are automatically displayed by the system if one or more self-added materials are selected in the "bill of materials" sheet, with these values entered.

14. **[level 3]** If desired, change the value of the "% efficiency recycling process raw materials" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**
15. **[level 3]** If desired, change the value of the "% efficiency recycling process End of Life" field (optional field) for this new product to be added. **If unknown, leave the value of 75%.**

#### EFFICIËNTIE VAN RECYCLINGPROCES

% Efficiëntie recycling proces grondstoffen

75

% Efficiëntie recycling proces einde levensduur

75

Picture 9: Efficiency recycling process

16. Click on the "save" button. The entered data is now saved in the product sheet "Product information".
17. Click on the second sheet "Bill of Materials" and then click on the "Add" button. The fields "Element \*" and "Number \*" are displayed.

If the **complete product composition (material & volume)** of the new product to be added is known, click on the second sheet "Bill of materials" and then click the "Add" button. The fields "Element \*" and "Number \*" are displayed. Then also go through steps 18 to 21.

If material and / or volume of the new product to be added is not known, the 'Bill of materials' sheet cannot be filled in. Then go directly to step 22 in this section.

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIËEL
TOEGEVOEGD				
Naam	Type	Waarde	% Recycled	% End of life material recovery

Picture 10: Bill of Materials

18. Click the button "Pick element \*" (required field) and then select a material from the Madaster database or the user's "own material library".

## TOEVOEGEN

Element KIES ELEMENT

Picture 11: Pick element

19. Fill in the field 'Number \*' (mandatory field), expressed in volume (m<sup>3</sup>) of the selected material.

Aantal m<sup>3</sup> / #

Picture 12: Material ratio

20. Click on the "save" button (at the bottom of the page). The entered data is now stored in the "Bill of Materials" product sheet.

21. If the new quantity product consists of several materials, repeat steps 19 to 21.

## GU-LICHTKOEPEL

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIEEL
toevoegen (+)				
Naam	Type	Wanda	% Recycled	% Steel reinforcement beams
Kunststof verbanding	Materiaal	1,009m <sup>2</sup>	0%	0%

Picture 13: Product with material ratio (example)

22. Click on the third sheet "Search criteria" and then click on the "Add criterion" button. Here, one or more search criteria can be added, which enable the Madaster system to automatically link elements from the source file (IFC and / or Excel) of the building to be read to this new product to be added.

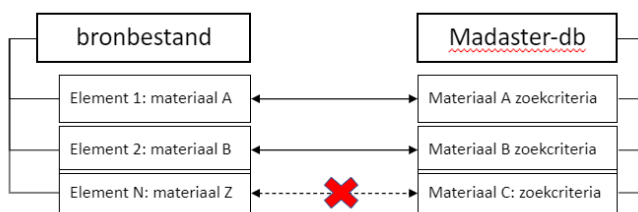
PRODUCTINFORMATIE   PRODUCTSAMENSTELLING   ZOEKCRITERIA   DOSSIER   FINANCIEEL

CRITERIUM TOEVOEGEN (+)

Zoekcriterium Matchingtype

Picture 14: Search Criteria

**Note:** When importing a source file (IFC and / or Excel), the materials of each element are validated against these search criteria. This examines whether the material of an element matches one of the search criteria at product / material level.



**Picture 15:** Matching of element (from source file) to added product in Madaster database (draft view).

A search criteria can be set up in different ways:

- Contains the search criterion
- Equals the search criterion
- Starts with the search criterion
- Ends with the search criterion

If multiple matches are found, the largest match (largest number of matching characters) will be used.

If the material of an element matches one of the search criteria at product / material level, the Madaster system will automatically link the element. If no automatic linking takes place, the user can manually link the element in Madaster (in sub step "Enrich").

23. Add one or more search criteria (optional field) to this new product to be added, so that the Madaster platform can automatically link this product to a corresponding element from a source file (IFC / Excel).  
Note: To do this, the user's "own" product library must be selected as a data set when uploading and / or when enriching the source data again.

## GU-LICHTKOEPPEL

PRODUCTINFORMATIE	PRODUCTSAMENSTELLING	ZOEKCRITERIA	DOSSIER	FINANCIEEL
CRITERIUM TOEVOEGEN (+)				
Zoekcriterium		Matchingstype		
GU-LICHTKOEPPEL		Bevat		

**Picture 16:** Search Criteria (example)

24. Click on the third sheet "Dossier" and then click on the button "Upload file". At this location, relevant files (e.g. product certificates, etc.) can be linked to the product to be added.
25. Click on the "..." button to select the file to be added (e.g. product certificates, etc.).

26. Select the destination folder in the Madaster Dossier, in which the file to be added (e.g. product certificates, etc.) is saved.
27. If desired, add "tags" (keywords), which will facilitate the search for this file to be added in the file in Madaster.
28. Finally click on the "Upload" button. The selected file (e.g. product certificates, etc.) is added and is visible in this sheet.
29. If desired, multiple files can be added in the product Dossier sheet.



PRODUCTINFORMATIE   PRODUCTSAMENSTELLING   ZOEKCRITERIA   **DOSSIER**   FINANCIEL

**UPLOAD** 

**BESTAND TOEVOEGEN**

Selecteer bestand(en) \*

Selecteer map \*

Tags (druk op enter of tab om toe te voegen)

**OPSLAAN**

**Picture 17:** Product Dossier

Return to the first sheet "Product information". Scroll down and finally click the "save" button. The entered data is stored and the 'Quantity' product is added to the user's 'own' product library.



## Link added products

Elements of a source file (IFC and / or Excel) of the building can be linked to newly added products in the Madaster platform. In the Madaster system this works in the same way as with existing materials and / or products. There are two ways to link elements of a source file, namely: (1) automatic and (2) manual.

### Link automatically

During the import process of a source file in Madaster, the platform will, based on the material description, automatically try to link each element in the source file to a corresponding material or product (based on the defined 'search criteria') registered in the Madaster database. For this reason, it is therefore very important that, when adding your 'own' set of products (and materials) in Madaster, the search criteria (of these products (and materials)) are filled in and correspond to the naming of the elements of the source file. Products in Madaster that are set-up without search criteria cannot be found and subsequently cannot be automatically linked by the system.

If a source file is already uploaded into Madaster (in Dossier) and products (or materials) have been added afterwards in Madaster, the source file does not have to be uploaded again. Instead the import process can be reactivated in the platform by using the "Enrich again" function (File> "View details" button> "Enrich again" button). The system will then attempt to reconnect each element in the source file to a product (or material) in the Madaster database. Alternatively, the source file is modified and a new version of the IFC file has to be uploaded and processed in Madaster.

Note: by using the "Enrich again" function in Madaster, existing manual links will be lost.

### Link manually

If there is no automatic link between an element from a source file (IFC and / or Excel) and a product (or material) in the Madaster database, it is possible to manually link the element (at a later stage) in Madaster to a corresponding product (or material) in the Madaster database (see also step 4 "Checking & enriching source data" in the Madaster Step-by-Step Manual). This manual process is briefly explained below.

1. In the "Dossier" sheet, click the "View details" button (shown after the source file).



Picture 1: View details

2. The "Quality Source file" screen is displayed. Click on the "Enrich" step in the submenu of this page. The "Enrich" page is displayed.







Picture 2: Submenu 'Enrich'



In the 'Enrich' page, the 'Element' column shows the name of the element of the source file (including the material description) and in the column 'Product / Material' the linked / yet to be linked product or material from the Madaster- database. In the column "Quantity" the linked elements are shown in blue colour and the non-linked elements in red colour. To the left of the page, using various filters, the variety of elements of a source file can be displayed (see picture 3).

[illegible]

Picture 3: Submenu 'Enrich'

3. Select one or more elements (in the 'Element' column) by selecting the radio button for the element.
4. Click the "(Re) Link Selection" button in the submenu. The "Link elements" screen is displayed.

Item	Item-ID	Material	Product / Material	Unit
	00_06V_g0-Sat a180-801302			0/1
	28_06V_HL-baR-H11408-574131			0/1
	28_06V_HL-baR-H11408-574200			0/1
	28_06V_HL-baR-H11408-574193			0/1

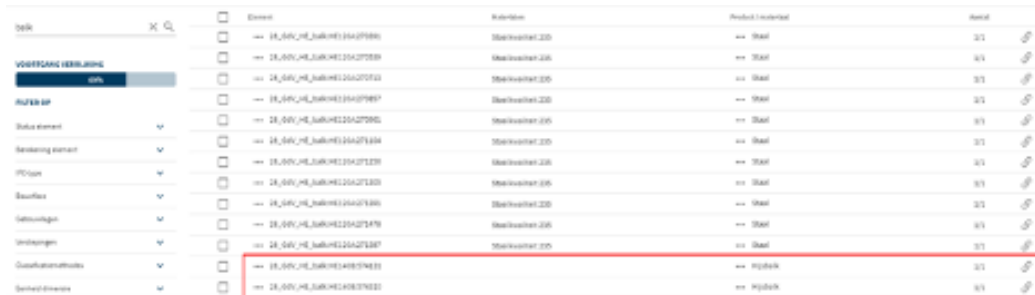
DESELECTEER (A)


SLUIT IN
SLUIT UIT

Picture 4: Select elements

5. Search for and select the (added) product in the Madaster database (see picture 5).

Picture 5: Link elements to newly added product

- Click the "Link" button. This links the selected elements of the source file to a product (or material) from the Madaster database.



Type	Element	Product	Product / Material	Amount
VOORRANG VERLENING	18_00V_H8_Ju8rHE125427586	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427589	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427593	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427597	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427599	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427604	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427608	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427610	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427616	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427617	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427621	Staalconstructie 220	Staal	31
	18_00V_H8_Ju8rHE125427622	Staalconstructie 220	Staal	31

Picture 6: Linked elements

**Note:** Changes in linked elements as well as changes in products (and materials) in the Madaster database must first be manually confirmed before these changes are visible in the various Madaster sheets (e.g. "Building" tab, etc.). To do this, click on the "Confirm" submenu, select the "yes" radio button and finally click on the "Confirm" button (see picture 7).



Picture 7: Confirm changes

Abbeelding 6: Doorgevoerde wijzigingen bevestigen

## Copy products

If several comparable products need to be added to the user's "own" product library in the Madaster platform, it is possible to copy an existing product and then adjust this copied product as desired. The copy function is only available within the "manual linking" process. This function is briefly explained below.

- Repeat steps 1 to 5 as described above in the section "Link manually". This selects one or more elements of the source file (IFC and / or Excel) that you want to link (to a product that is already available in the Madaster database or own products library and you want to copy).
- Click the "Copy selected product" button (on right hand side) in the "Link" screen.



Picture 1: Copy selected product

3. In the "Create new product" screen you change the fields (e.g. "Brand name", etc.), with which you distinguish the copied product from the original.

## NIEUW PRODUCT

PRODUCTINFORMATIE

ZOEKCRITERIA

Merksnaam \*

Kanaalplaat

Beschrijving

Productcode (EAN of GTIN, ...)

Leverancier

Picture 2: Create new product

4. Click the "Save" button. The copied product is saved and the other product sheets (including "Bill of materials", "Search criteria", etc.) are displayed.
5. Where required, change the information on these sheets to match the set-up of the copied product.
6. Click the "Save" button to save any changes made to the product sheets of the copied product. The "Linking elements" screen is then displayed.
7. Click the "Link" button. This links one or more selected elements of the source file to the copied product.

## Deactivate products

If a self-added product is no longer needed and should no longer be part of the user's 'own' library to link elements of the source file manually or automatically, this product can be deactivated. This means that the product no longer appears in the (active) selection of its own product set and the Madaster system will no longer automatically be able to link this product. Pre-existing links will be maintained. This function is briefly explained below.

1. In the main menu, click on 'Administration'.



Picture 1: Administration

2. Use the search function or filters to find the product to be deactivated.
3. Click the "cog" icon behind this product. The product features of this product (incl. The different product sheets) are displayed.



Picture 2: cog icon (adjust product)

4. Click the "Deactivate" button in the top left of the "Product information" sheet. The "Confirm" screen is displayed.



Picture 3: Deactivate product

5. Click the "Yes" button in the "Confirm" screen.



Picture 4: Confirm product deactivation

The product is now deactivated in the Madaster system. This is made clear as the fields of this product are now shown in Gray colour.

## Search deactivated products

If desired, a deactivated product can be reactivated. This makes the product part again of the active selection of the user's 'own' products library in Madaster and the product is included in the process of manually or automatically linking elements from source files. This function is briefly explained below.

1. In the main menu, click on 'Administration'.



Picture 1: Administration

2. Open the filter 'Status' in the bottom left of the 'Administration' screen.



Picture 2: Filter 'Status'

3. Select the radio button "inactive" in the filter "Status" (see picture 2). The "Administration" screen now shows all deactivated (inactive) products under the user's own Madaster account.

## Activate products

1. Repeat steps 1 to 3 as described above in the chapter "Search deactivated products".
2. In the list of deactivated products, find the product to be activated.
3. Click on the "cog" icon behind this product. The product features of this product (incl. The different product sheets) are displayed.



Picture 1: cog icon (adjust product)

4. Click the "Activate" button in the top left of the "Product information" sheet. The "Confirm" screen is displayed.



Picture 2: Activate product

In the "Confirm" screen, click the "Yes" button. The product is now (re)activated in the Madaster system. This is visible because the fields of this product are now displayed in white colour again.

## Madaster Support

The Madaster Service desk can be reached by telephone during office hours (+31 85 060 1242).

When logged in your Madaster environment, you can always consult the available online support documentation. Each page in the Madaster platform contains an "I" button on the right side (mid-screen). This provides information about the relevant page and available functions at all times.

This information and additional guides and reference works on the use and development of the Madaster platform can also be found directly at the following [link](#).