

Material Library and Palettes

This section covers managing your material library. Skip to [creating floor plan](#) or back to the rest of the [plans task](#) guides.

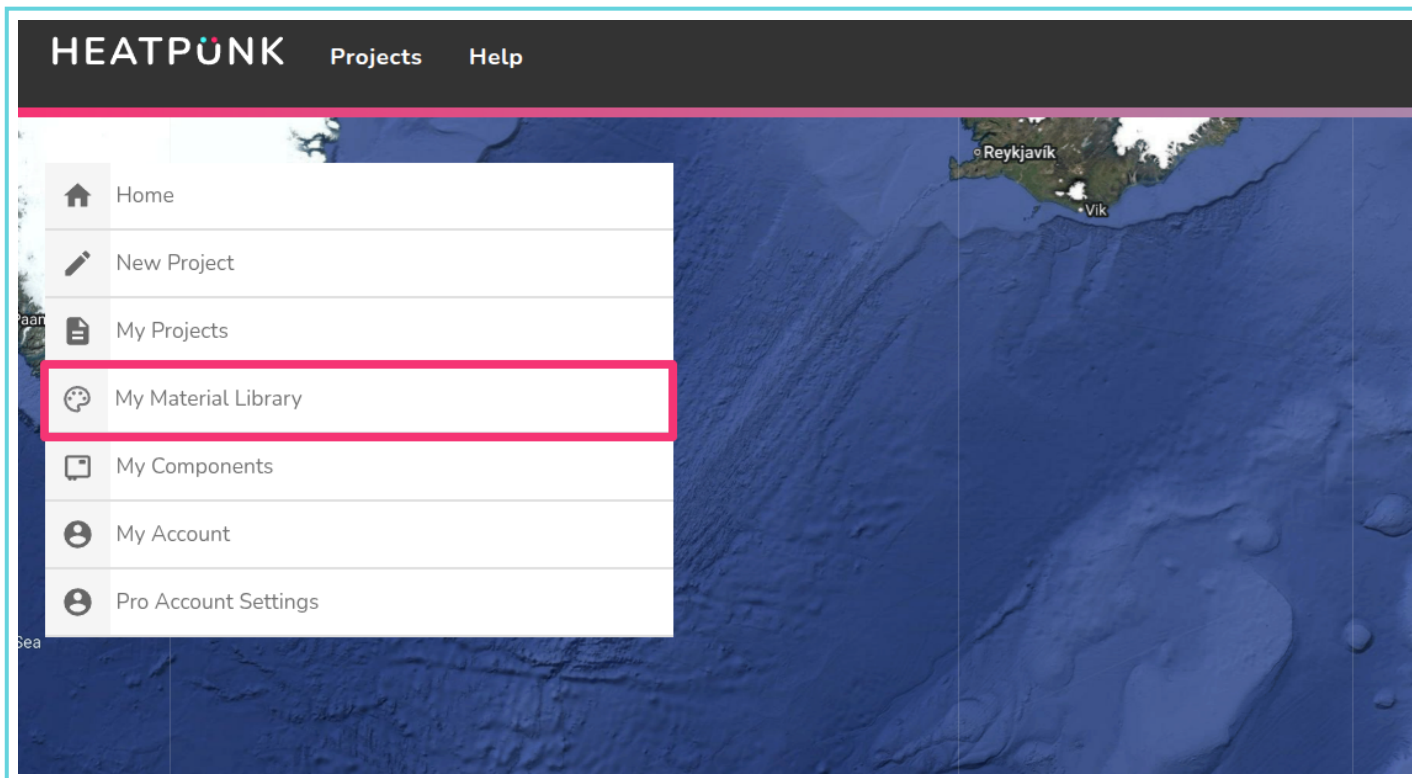
- [Managing Your Material Palettes and Library](#)
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Managing Your Material Palettes and Library

For each Heatpunk project you will need to use a **material palette**. This palette defines the u-value and thickness of the walls, doors, floors, ceilings that make up the property you're modelling. You can create **default palettes** usable on any project via your **material library** or build palettes from scratch for each project.

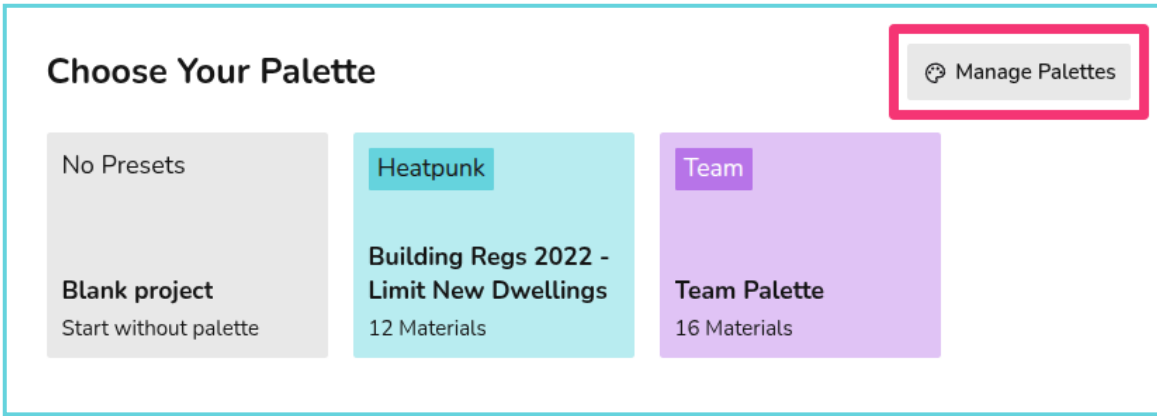
Material Library

The material library can be accessed from the Heatpunk homepage under *My Material Library*. This library contains all your material palettes.



When you create a project, you will see all your complete palettes and the option to create a palette from scratch (*No Presets*). You can also navigate to the material library from here by clicking *Manage palettes*.

If you select *No Presets* and create a palette through a project, it **will not save** to your material library.



In your material library, you will be able to **view** and **edit** all your material palettes and **create new ones**. Each palette will have a three-dot menu in the top right which will give the following options:



Edit palette

Make changes to the palette. This will not affect projects already using this palette.



Clone palette

Make a copy of the palette.

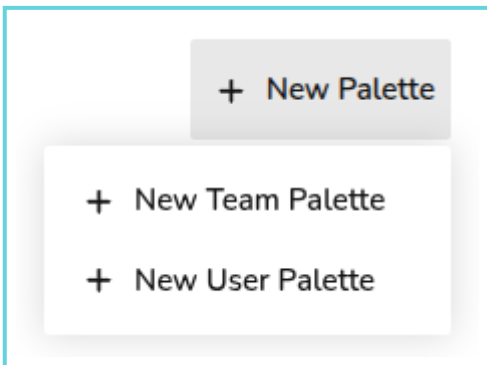


Delete palette

Remove the palette from your library. This will not affect projects already using this palette.

See [here](#) for information on **editing a palette within a project**.

In the top right you can **create a new palette**.



Creating a palette

<https://www.youtube.com/embed/Ti02JsAqZ8Q>

1. Click + **New Palette** in the top right, then + **New Team/User Palette**.
2. Input the name of the palette and click *OK*.
3. Click on the new palette to add materials.
4. For each section (External walls, Windows, etc.) select the materials you would like to be included in the palette.
5. Click the star next to the material you'd like to be the **default** one used for this palette.
6. Once you have added all the materials you need to a section, click *Next* on the bottom right or navigate to the next section directly from the sidebar.
7. Once you have entered a material for each section and completed your palette then click *Home* on the bottom left to finish.

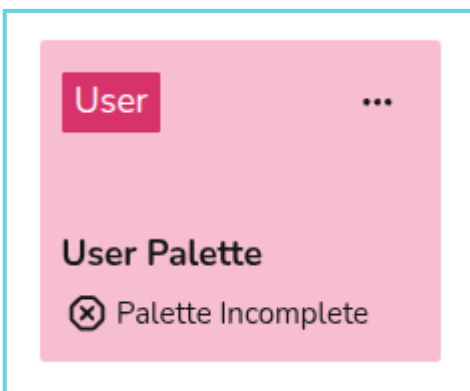
Default materials (starred) are automatically selected in floor plans, but this can be easily **overridden or edited** on a per-project basis.

You will then be able to select this palette on any new projects. Note:

- Pre-set materials are based on CIBSE's Domestic Heating Guide, if you can't find the material you need, you can [create a custom material](#).
- Some floor materials will not list the u-value. This is because in the MCS calculation, floor U-values are dependent on the area of the room and the number of edges which are external and are calculated per room.
- Standard users will only be able to make user-level palettes. Pro users will be able to create team-level palettes that will be available when pro team members create a project.

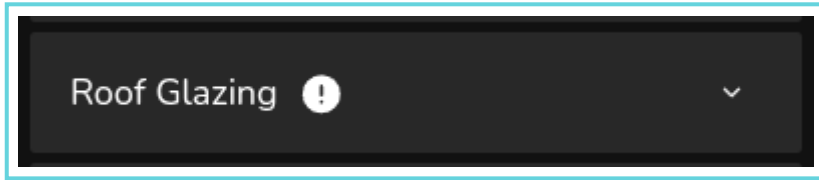
Incomplete palettes

Incomplete palettes will save but will not be selectable on projects.



Each section needs **at least one material**, but only materials used in a project will be displayed on reports. The ! symbol next to each section title signifies that the section is incomplete. Make

sure each section has a material, even if you do not plan to use it.



If you have further questions, please get in touch on help@heatpunk.co.uk or help@heatpunk.ie.

Choosing a Material Palette

When you create a project, you will be prompted to select a [material palette](#). This palette determines the composition of the walls, floors, windows, doors and radiators that can be used within a project.

Click on each palette to preview what materials are selected for each section (External Wall, Internal Wall, Floor, etc.). You will be able to make adjustments to the selected palette from within the Plan task. Once selected, click *Use Palette* in the bottom left.

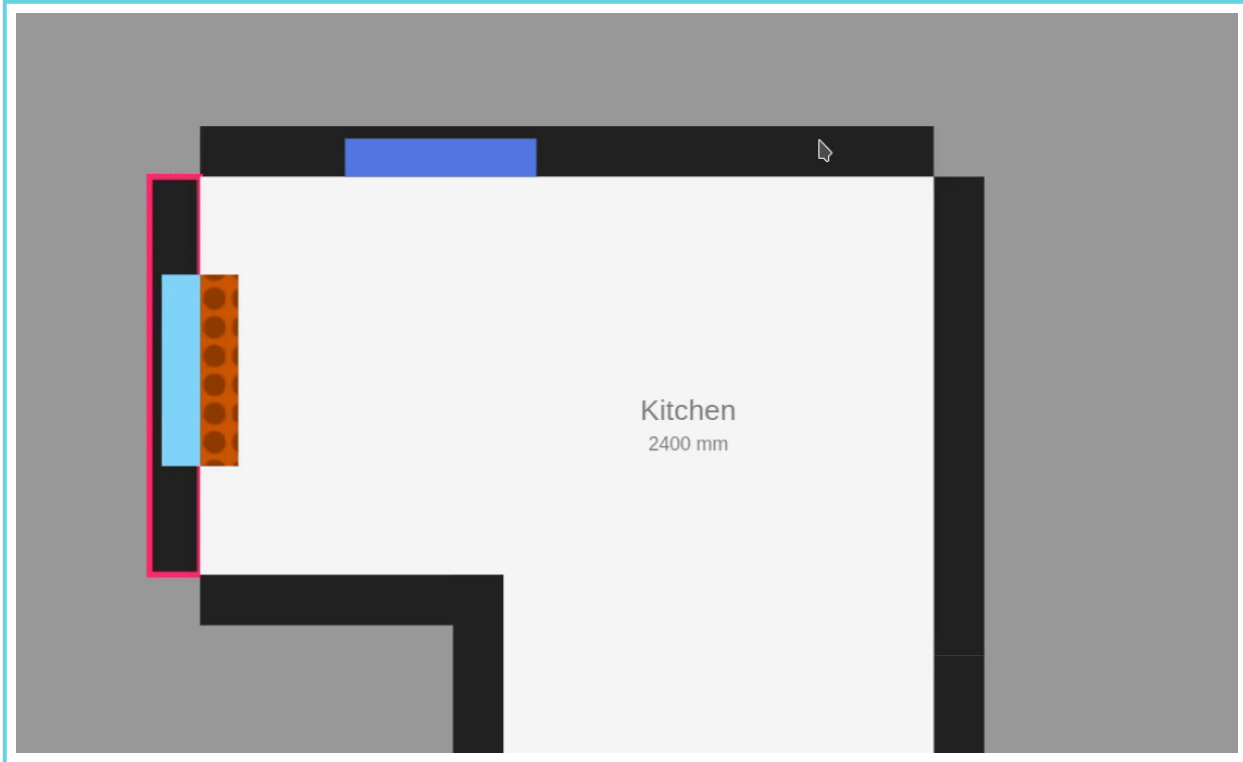
The screenshot displays the 'Choose Your Palette' interface. On the left, three palette options are shown: 'No Presets' (Blank project, Start without palette), 'Heatpunk' (Building Regs 2022 - Limit New Dwellings, 12 Materials), and 'Team' (Team Palette, 16 Materials). A 'Use Palette' button is located at the bottom left. In the top right, there is a 'Manage Palettes' button. On the right side, a preview of the 'Team Palette' is shown, detailing materials for different sections: External Wall (3), Internal Wall (2), Floor (2), and Intermediate Floor (1). The 'External Wall (3)' section lists three materials: 'Brick 102mm, cavity, brick 102mm, 13mm plaster' (Thickness: 264 mm, u: 1.37, starred), 'Brick 102mm, 50mm mineral slab, brick 102mm, 13mm plaster' (Thickness: 267 mm, u: 0.56), and 'Stone 457mm (18in)' (Thickness: 457 mm, u: 2.23).

If you select *No Presets*, you can build a palette from scratch but this will not save to your material library. Click *Manage palettes* in the top right to navigate to your material library to [create default palettes](#) or edit existing ones.

Using a palette in a project

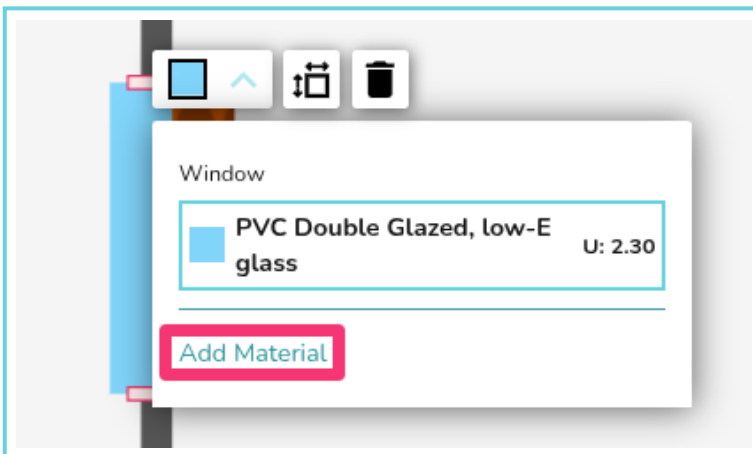
When creating your floor plan, the **default** (starred) materials will be used for each external wall, internal wall, floor, etc. Each material has a **key** (patterned square) so you can see where each is being used in the floor plan.

Click on each component to **view the full material details** and **make changes**.



Editing palette within a project

In this same menu, you can click *Add Material* to make project-level changes to the palette.



Click *Close* in the bottom left to save these changes.

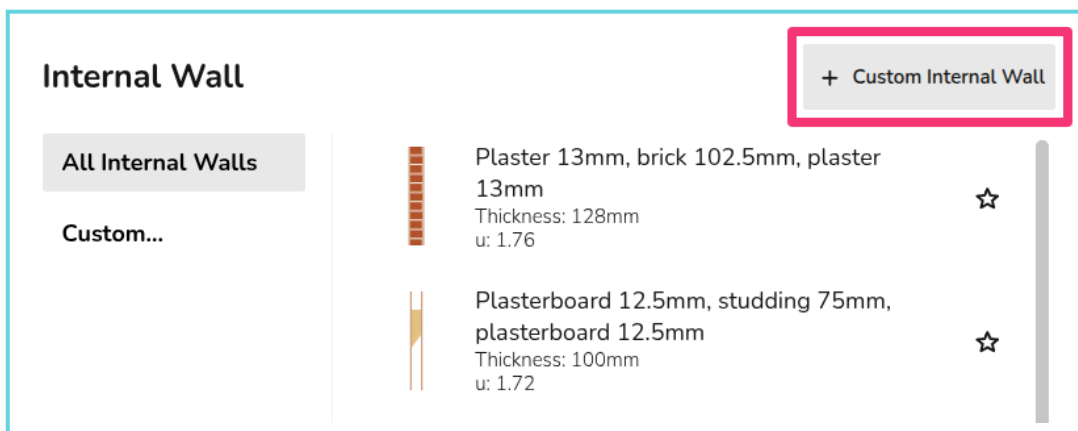
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Custom Materials

When creating or editing a material palette in Heatpunk, you have the option to **create custom materials**. This includes custom walls, floors, roofs, doors, windows and radiators.

Custom materials

To create a custom material, first start by [creating a material palette](#). Select the relevant section (External walls, Windows, etc.), then in the top right you will see the option to create a custom material.



There are two options when creating your own material (excluding radiators):

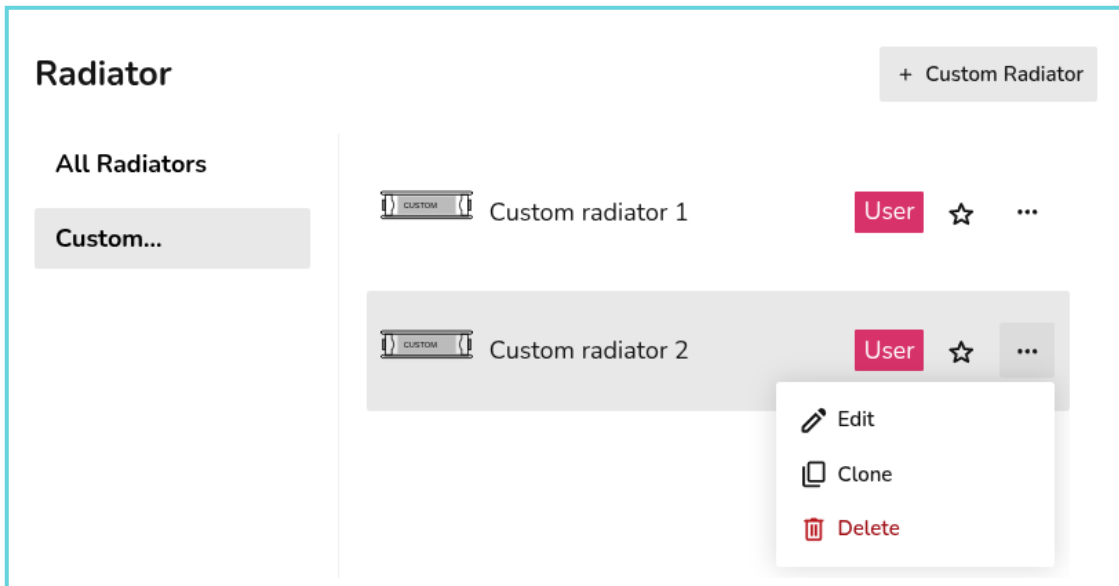
- **Build layers** (only for walls and roofs)
- **Enter U-value**

Custom **radiators** use information from the relevant datasheet.

After creating a material (steps below), make sure to **select it on the palette** and star it if you'd like it to be the default material used for that section.

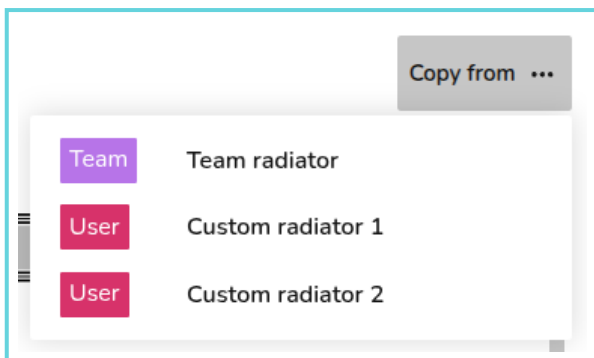
Managing custom materials across palettes

You can view all custom materials you've created across palettes from within a material palette, in the final section on the left-hand sidebar called *Custom*. Click the three-dot menu on the custom material to **edit**, **clone** or **delete it**. Existing projects are not affected by any changes made here.



You can only view the custom materials that are within the scope of the palette. For example, if you're creating a team level palette, you will only be able to view team custom materials. Follow the steps below to view and use all custom materials.

When creating a new custom material, you can also **copy the details from existing materials** using the *Copy from* in the top right. Here you will be able to see all custom materials (user and team level) **regardless of the scope of the palette** being viewed.



Step-by-step

Custom material using *Build layers*

This option is available for custom **walls** and **roofs**:

1. Input the name for the custom material.
2. Select category of material from the drop-down.
3. Select material from the drop-down.
4. Input thickness of that layer.
5. Add row and repeat from step 2 to 4 until each layer is created.

6. Click *Create* in the bottom right.

For each layer, Heatpunk will then calculate the k-Factor based on the material and thickness. If you select *Custom* for the material category, you will need to input this k-Factor yourself. The overall thickness and U-value of the material is given at the top.

New Custom External Wall Copy from ...

U-value: 0.40 Thickness: 300 mm

Custom External Wall Name

Custom Material

External Wall properties

Category	Material	Thickness (mm)	k-Factor (W/m K)	
Walls	Concrete (high density)	100	1.930	—
Insulation	Glass fibre slab	75	0.035	—
Walls	Concrete (dense)	100	1.400	—
Surface...	Plaster (dense)	25	0.570	—

+ Add Row

Cancel Create

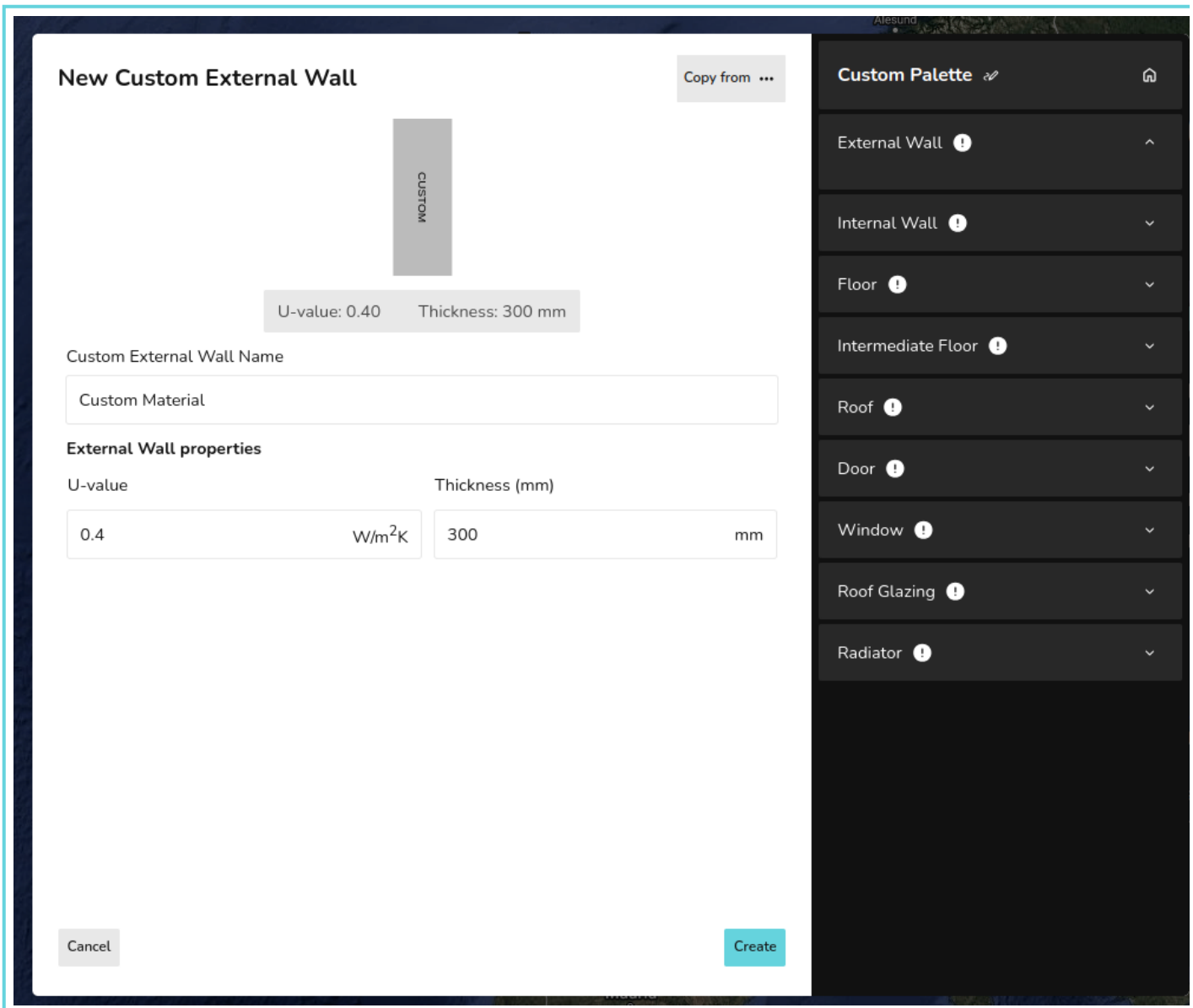
Custom Palette

- External Wall ! ^
- Internal Wall ! v
- Floor ! v
- Intermediate Floor ! v
- Roof ! v
- Door ! v
- Window ! v
- Roof Glazing ! v
- Radiator ! v

Custom material using *Enter U-value*

This option is available for all materials (excluding radiators):

1. Input the name for the custom material.
2. Input the U-value and thickness.
3. Click *Create* in the bottom right.




Custom radiators

The default P+, K1, K2, and K3 radiators in Heatpunk are the Stelrad Classic Compact range. If you are not using these radiators, it's important to create custom radiators so the outputs are accurate.

1. Input the name for the custom material.
2. Input the width and height of the radiator.
3. Input the n-coefficient from the datasheet (typically around 1.3)
4. Input the P50 for the corresponding radiator size.
5. Click *Create* in the bottom right.

New Custom Radiator Copy from ...



Custom Radiator Name

Radiator properties

Width

 mm

Height

 mm

n Coefficient

P50

 W

Cancel Create

Custom Palette 🏠

- External Wall ! ▼
- Internal Wall ! ▼
- Floor ! ▼
- Intermediate Floor ! ▼
- Roof ! ▼
- Door ! ▼
- Window ! ▼
- Roof Glazing ! ▼
- Radiator ! ▲

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