

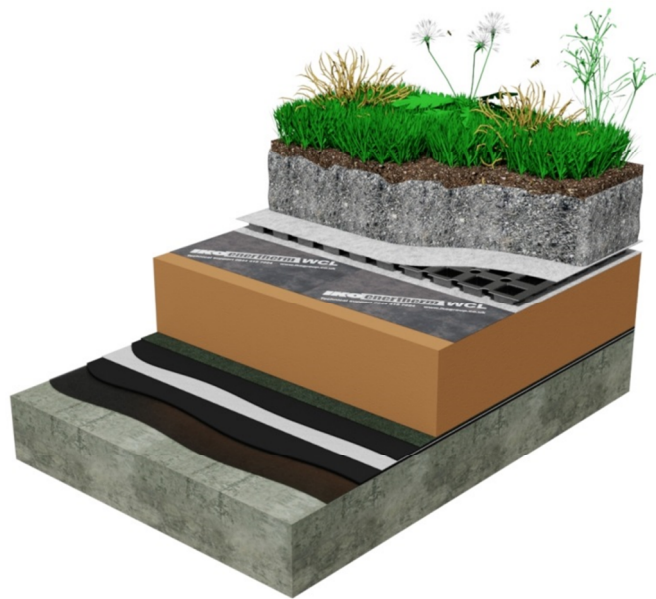


# Permasec Hot Melt Waterproofing Systems

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## Building Information Modelling (BIM)

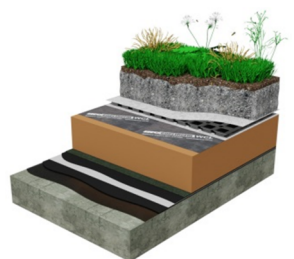
User Guide by IKO Technical Services



Hot melt waterproofing has a successful track record stretching back over 45 years. Today, many prestigious buildings in the UK have incorporated a hot melt system, thanks to its outstanding waterproofing performance and unrivalled design flexibility. Permasec is a hot applied system which is manufactured from a specially formulated combination of refined bitumen, synthetic rubbers, fillers and other additives. It is melted in a purpose built machine and is applied to a prepared structural deck in two nominal 3mm coats, providing a monolithic waterproofing system. It is suitable for use as the waterproofing layer in most new build flat roofing applications, when covered by suitable protection or when used in an inverted roof or green roof specification.

## Contents

1.0 IKO and BIM .....	2
2.0 BIM object navigation .....	2
2.1 Contents .....	2
2.2 Builds .....	2
2.3 Core boundaries .....	3
2.4 Materials .....	3
2.5 Returning to initial screen .....	3
3.0 Loading a system into your project .....	4
4.0 Applying the system .....	4



## 1.0 IKO and BIM

IKO have started to produce in-house BIM content for our various roofing and waterproofing systems. These will steadily become available to download direct from our website [www.ikogroup.co.uk](http://www.ikogroup.co.uk) in .rvt format created in and readable by Autodesk Revit users.

Our BIM objects are loaded with COBie parameters; these are built in both at system level and also into the individual materials to satisfy the requirement for Level 2 BIM compliancy.

This document has been produced accompanying the downloaded BIM object as a guide to ensure the user can fully navigate and import the required information into their specific project.

We are constructing and managing our own content, so if you would like to receive update notifications or provide feedback please complete the '[BIM - Update Request & Feedback](#)' form through our website.

## 2.0 BIM object navigation

### 2.1 Contents

Upon opening the downloaded BIM object you will be presented with a Revit floor plan view that effectively acts as a contents page for the different builds offered by the IKO system (labelled top right). These are displayed down the left and an example of which presented as imagery to the right.

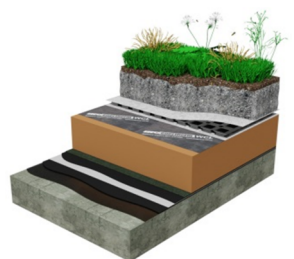
Each build can be explored from this screen prior to loading the one required into your project. If undecided however at this stage multiple build-ups can be loaded for later consideration then unused ones easily deleted from your project as necessary. Both methods will be explained later in this guide.

### 2.2 Builds

By highlighting and selecting one of the builds, information relating to just that particular instance is shown in the properties menu. If your properties menu is not visible just right click on the build and ensure that 'properties' is ticked.

With the build selected, click on 'Edit Type' in the properties menu, this will then display that particular IKO system Type Parameters. All COBie parameters pertaining to the overall system are grouped under the section 'Other'.

To view the various constituent material layers for the system locate the 'Structure' parameter and select the value 'Edit...' this will open the 'Edit Assembly' window.



## 2.3 Core boundaries

The core boundaries displayed within the 'Edit Assembly' window contain all products necessary for the main system, for detailing works additional or alternative products may be required. To request specific section details for the system required for your project contact [technical.uk@iko.com](mailto:technical.uk@iko.com)

Core Boundary Functions by IKO:

- Substrate [2] – Typical deck to receive the system. This may be changeable subject to approval by [technical.uk@iko.com](mailto:technical.uk@iko.com)
- Thermal/Air Layer [3] – Defines insulation within the system, so should not be deleted or 'swapped out' for any other product. However, thickness is indicative and can be adjusted to suit specific U Value requirements.
- Finish 1 [4] - Integral materials for the system and as such should not be deleted or 'swapped out' for any other product.
- Finish 1 [5] – Materials supplied by others so can be populated with their information as and when required.

Both Structure and Membrane Functions are not used.

Note: We strive to ensure that the information provided in our BIM objects are correct, any subsequent changes made to the core boundaries by users conflicting with the points stated above or without the approval of [technical.uk@iko.com](mailto:technical.uk@iko.com) may null and void the guarantee.

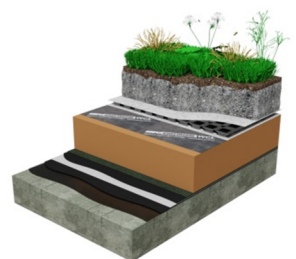
## 2.4 Materials

To find out more about a specific material simply select it and click on the button that appears to the right. This will open the materials browser where descriptive and product information can be found under the 'Identity' tab on the right hand side.

Additional custom parameters are viewable by selecting the 'custom parameters...' button at the bottom of the Material Browser menu; here you will find COBie parameters built in at material level.

## 2.5 Returning to initial screen

Exit by clicking cancel on each of the windows so as not to accidentally make alterations to the system or materials.



### 3.0 Loading a system into your project

Roofing and waterproofing systems form part of the fabric of the building in Revit and as such are not loaded in as a typical object would be that has defined parametric definitions e.g. a chair. There are few ways to load in the system but the simplest way would be as follows:

- 1) Select the required build-up from the contents list and press Ctrl+c (copy). Multiple systems can be selected using Ctrl click.
- 2) Return to your active project and open one of your floor plans
- 3) Press Ctrl+v (paste)
- 4) Place the system somewhere on the page

The system build-up information is now loaded into your project and ready for use. Should you wish to delete the visible square just pasted into the project then you can; the system information will remain and can be allocated as and when required every time a roof component is selected. Should you wish to delete the system information completely this can be done accessing the relevant system family via the project browser.

### 4.0 Applying the system

Once the system has been loaded successfully by following the procedure set out in the previous section select the relevant part of the structure to which you would like to apply the system then select it from the dropdown list in the properties menu.

