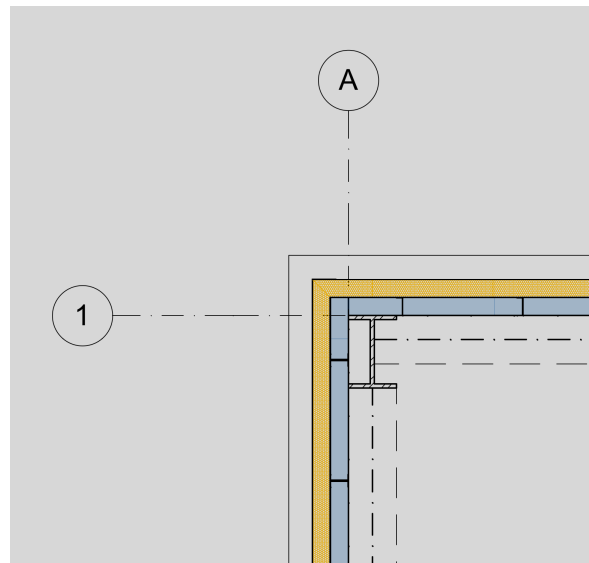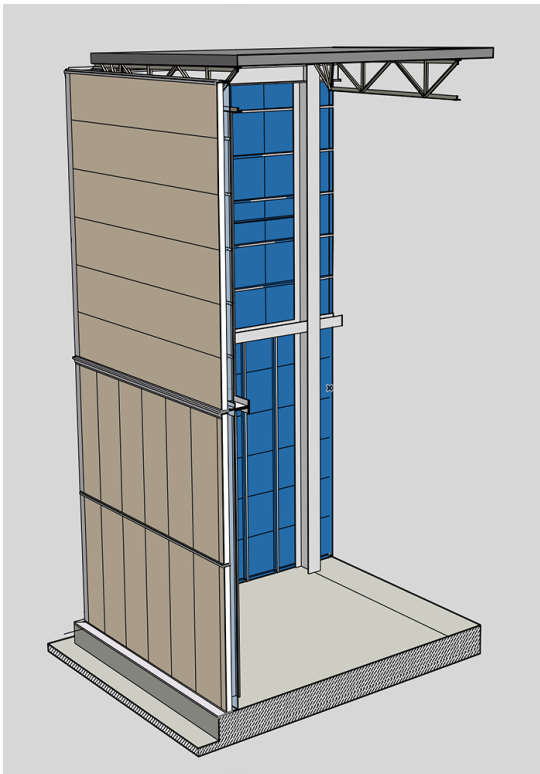# BIM Library Part
Wall Accessory

Kingspan's products for ARCHICAD 21

Kingspan®

1. **GENERAL INFORMATION**

   KINGSPAN'S PANELS library for ARCHICAD 21 allows to create compound panels' objects representing KINGSPAN product systems.

2. **SYSTEM REQUIREMENTS**

   The Library is compatible with ARCHICAD 21. Parametric objects can be inserted into a project as independent objects and their core functionality can be accessed with ARCHICAD's Accessories Add-On.

3. **ADD-ON INSTALLATION**

   3.1. Add-on is free and can be downloaded from Graphisoft web page. Direct link to download page can be accessed through menu Help/ARCHICAD Downloads (http://www.graphisoft.com/downloads/goodies/AC21/INT.html)

3.2.   On the webpage click '*Goodies for ARCHICAD*' link and then download "ARCHICAD 21 Goodies Suite installer"

3.3.   Installation Wizard will guide through the installation. After accepting Licence agreement Installer will look for ARCHICAD Home directory to install the Add-on. (Choosing other directory for the Add-on will cause a warning)

3.4.   Next, User will be asked to choose Add-on to be installed. Make sure Wall/Roof/Slab Accessories is selected.
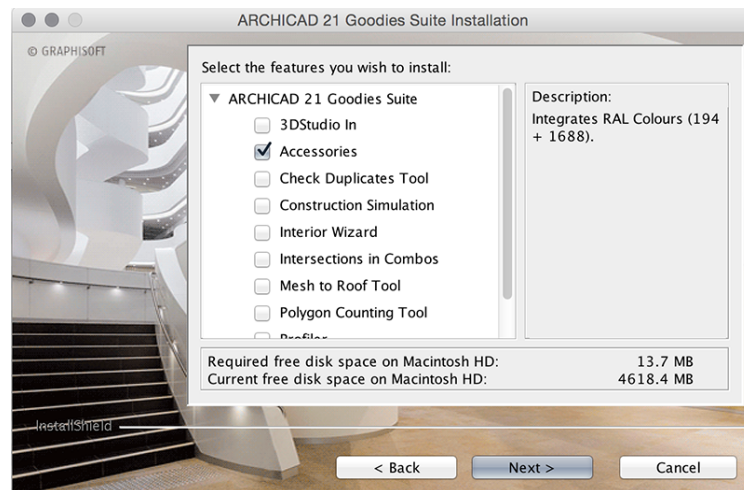
3.5.   After installation is completed the Add-on will be accessible from the menu Design/ Extras/Accessories.
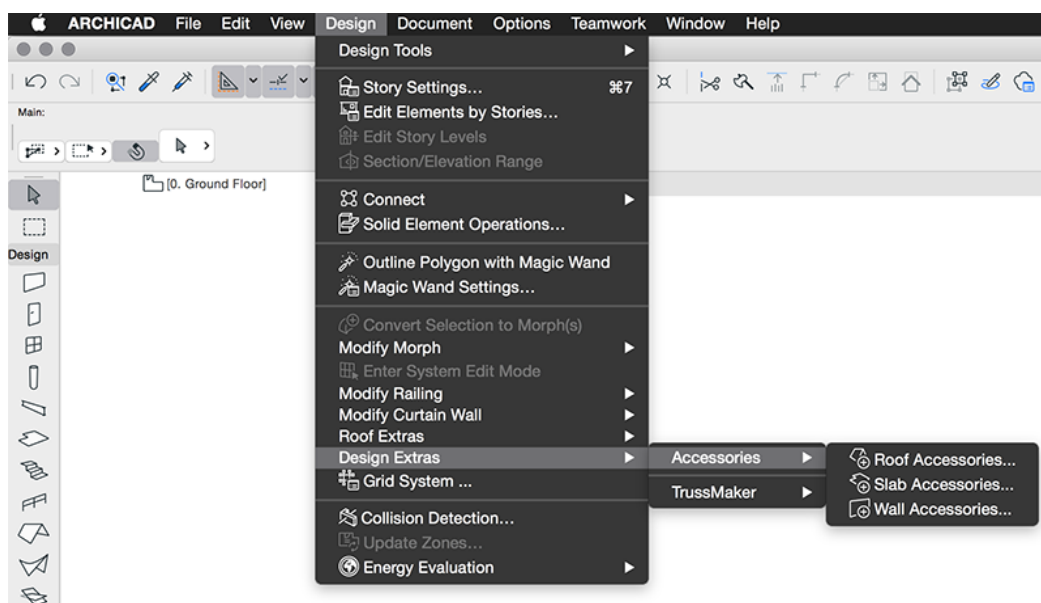
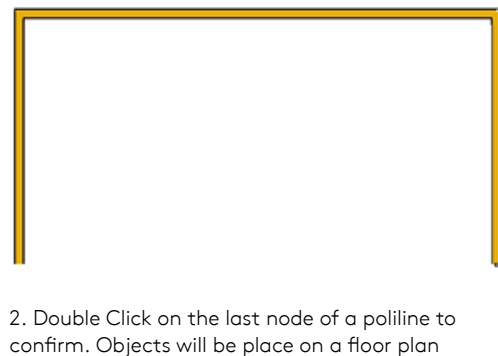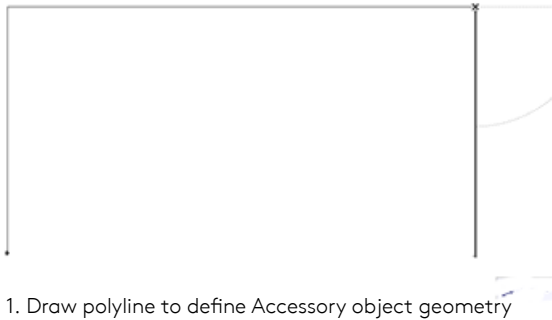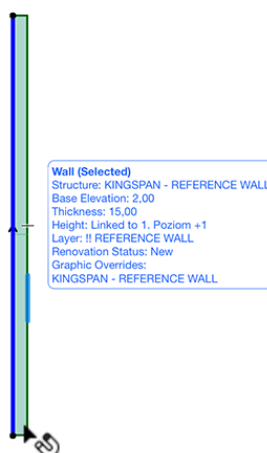## 4.   INSERTING KINGSPAN'S PANEL OBJECT (KPO) TO A PROJECT

KPO can be inserted to a project workspace in three ways:

A. Independent library part - choose Object Tool and browse for KPO. Place KPO in a floor window. KPO will behave like any other library part. User can change dimensions (Width,Height,Length) and access object's parameters.

B. Through Wall Accessory Add-on - choose from menu Project/Extras/Accessories/Wall Accessory, browse for KPO in Accessory setting window and click OK. Draw a polyline along which the add-on will distribute KPO.


1. Draw polyline to define Accessory object geometry

2. Double Click on the last node of a poliline to confirm. Objects will be place on a floor plan

C.   ARCHICAD's Wall element - select a wall element on a floor plan or in a 3D Window and choose Wall Accessory from the menu Project/Extras/Accessories/. After confirming, the program will ask to choose side of the wall on which KPO should be distributed. KPO dimensions will be adjusted to wall's height and length dimensions. KPO from that point will change its dimensions according to the wall it is connected to.

Wall (Selected)
Structure: KINGSPAN - REFERENCE WALL
Base Elevation: 2,00
Thickness: 15,00
Height: Linked to 1. Poziom +1
Layer: !! REFERENCE WALL
Renovation Status: New
Graphic Overrides:
KINGSPAN - REFERENCE WALL

1. Select Reference wall

2. Indicate on which side of Reference wall object shall be created

5.   HOW TO MODEL - CONCEPT OF REFERENCE WALLS

5.1.   To model multiply KINGSPAN'S Panel Object (KPO) it is suggested to use a reference wall which serves as an abstract gizmo element and is not a specific part of a building's model.

It can be described as a 'Substructure space' that can be found between main structure of a building and cladding panels.


Reference Wall placed as a substructure space
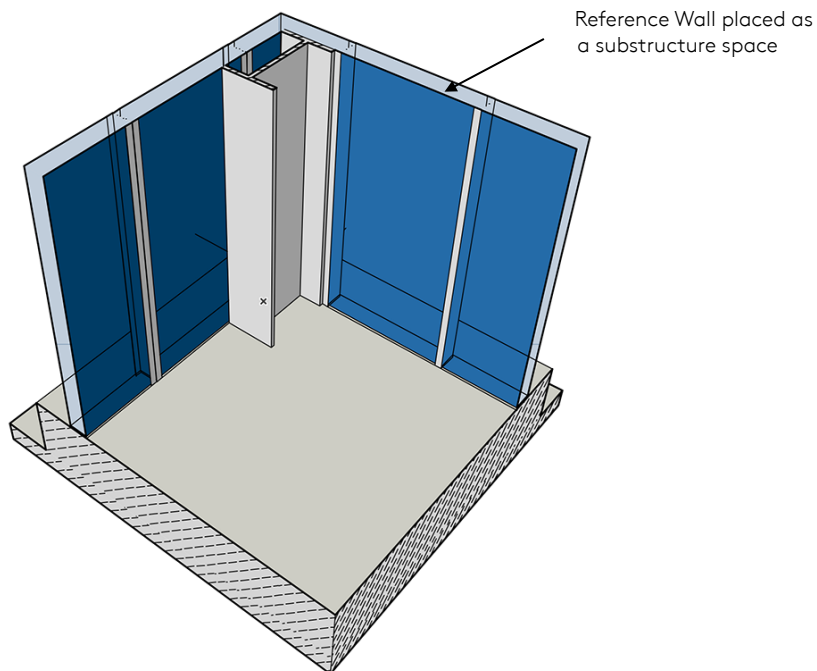
5.2.   Reference wall   should not be visible on a floor plan and should not interact with other building's elements. To achieve that, one should create a specific building material with Intersection Priority set to 0 (the weakest). Also turn off Participates in Collision Detection in 'Physical Properties' tab. This will make a reference wall 'invisible' to the building's elements.

Intersection Priority set to 0

Turn off Collision Detection
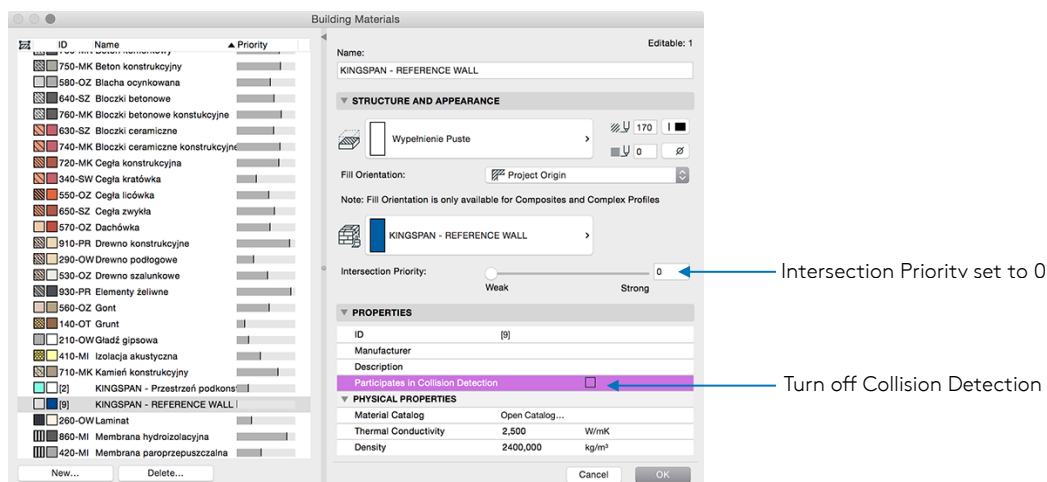
5.3. In case of exporting to IFC file, open IFC Translation Setup window, go to 'Export Options' tab page and open 'Conversion Options' in Geometry conversion section (1). 'Geometry Conversion Options' window will popup: select 'Export geometries that "Participates in Collision Detection"(2)
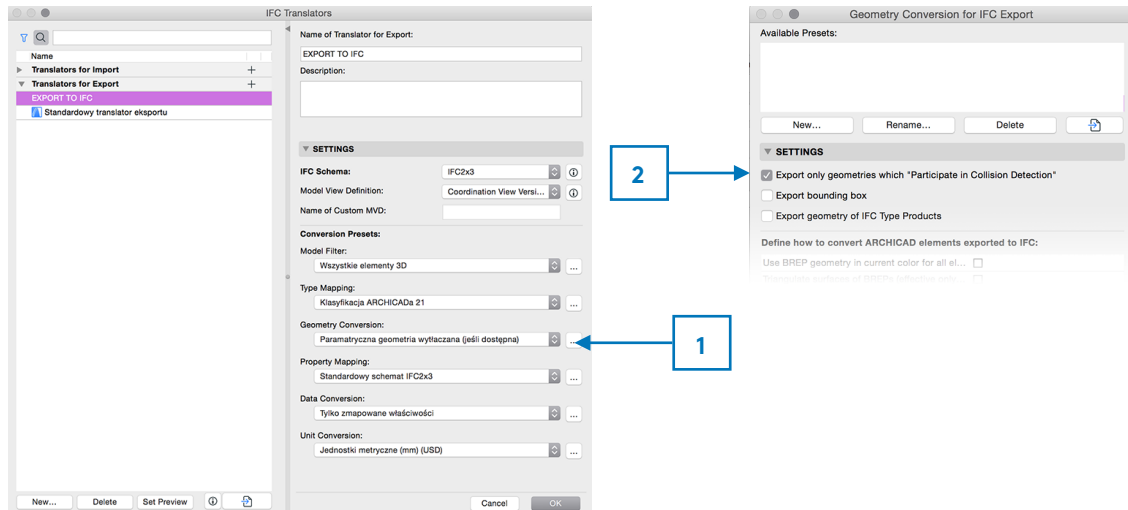
5.4. Wall Reference lines should face the same direction to avoid situation in which KPO will be placed on different sides of neighbouring reference walls.
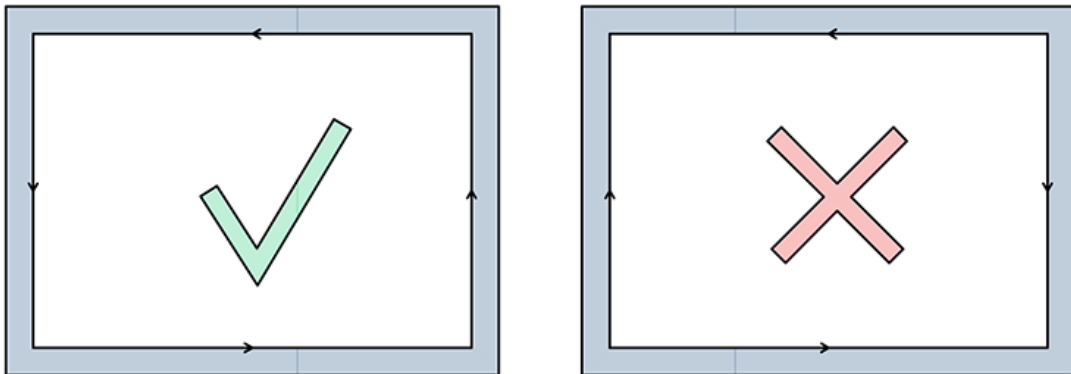
6.   PLACING KINGSPAN' PANEL OBJECTS INTO PROJECT.

6.1.   Draw chain of reference walls according to project specifications.

6.2.   Select reference walls and choose Wall Accessory. from Project/Extras/ Accessories/ menu. In Wall Accessory setting window browse for KPO and press OK. Choose a side of reference wall on which KPO will be placed (the cursor icon will change to an 'Eye'   )
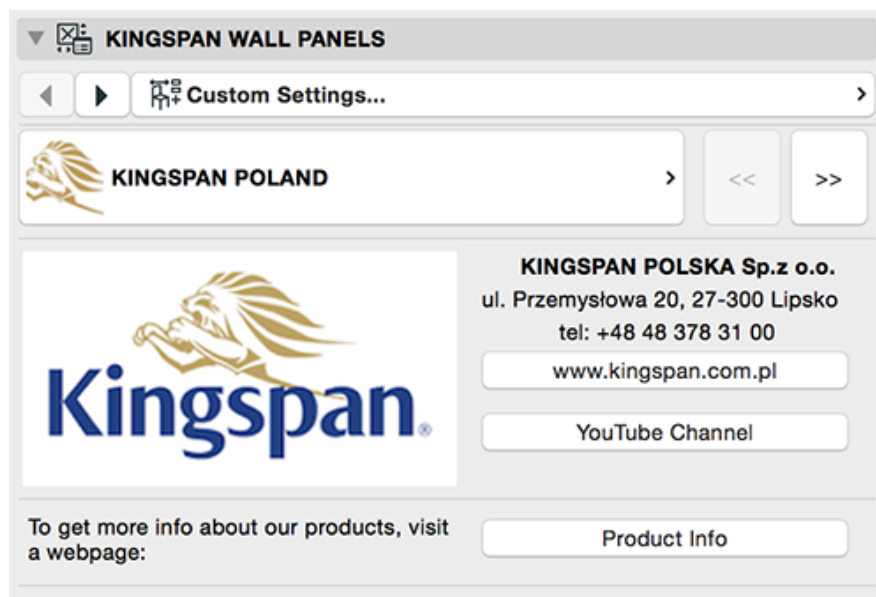
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7.   SETTING UP GEOMETRY WITH GRAPHIC INTERFACE

7.1.   Graphic interface consists of eight tab pages with following parameters:

7.1.1.   **KINGSPAN** (Manufacturer info page)

Here one can find basic information about Kingspan with links to official webpage.

7.1.2. **PRODUCT SPECIFICATION** (Name of this tab page is a product name)

Subtitle informs to which product family it belongs . (i.e. Secret-fix panels, Acustic panels, coldrooms etc.)

Product name Kingspan's product trade name

Core type list of cores avaliable for chosen product

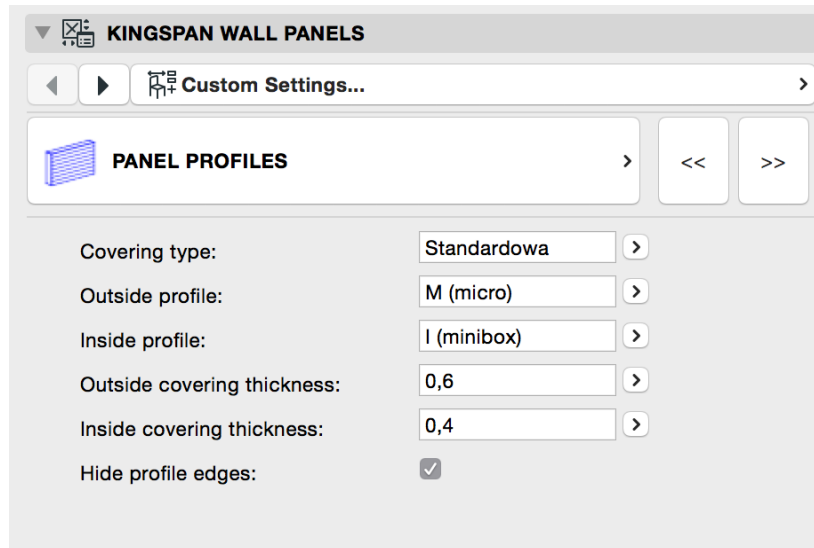**Panel thickness** list of thickness values avaliable for chosen product

Modular width information on modular width of chosen product

Heat conduction, **Firerating** properties depend on product type and thickness

System specification button opens default internet browser and directs to product's landing page.

Preview Picture
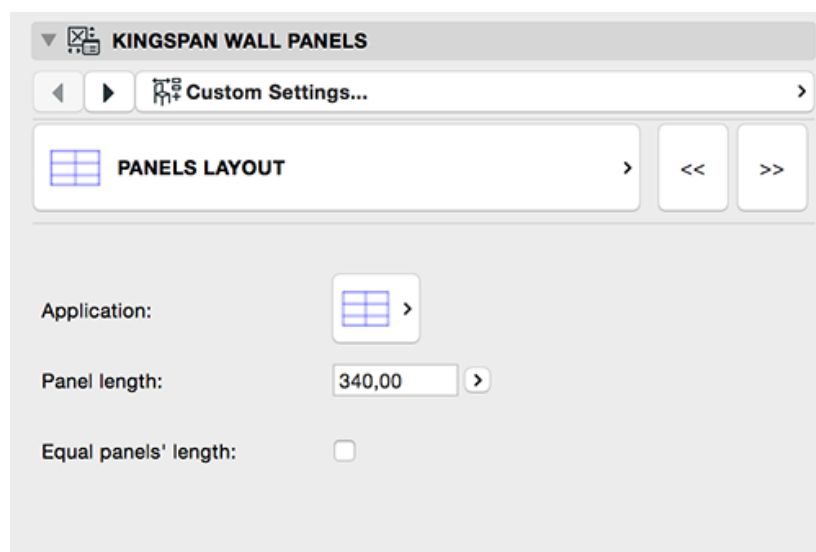
7.1.3. PANEL PROFILES

This tabpage hosts parameters of panel's inside/outside covering plates.

Option **Hide Profile Edges** turns off the display of profiles edges on Section/Elevation/drawings

7.1.4. PANELS LAYOUT

**Application** sets Horizontal/Vertical orientation of panels.

Panel length min/max range of length depends on a specification of chosen product. Panels of specific lenght will be distributed along reference wall and the last colum/row of panels (depending on application) will be accordingly shorter to fit the reference wall's length.

Equal panels length enables **Number of panels in row/column field,** which distributes specified number of panels with of? even length along a reference wall.

7.1.5. **COLOURS**
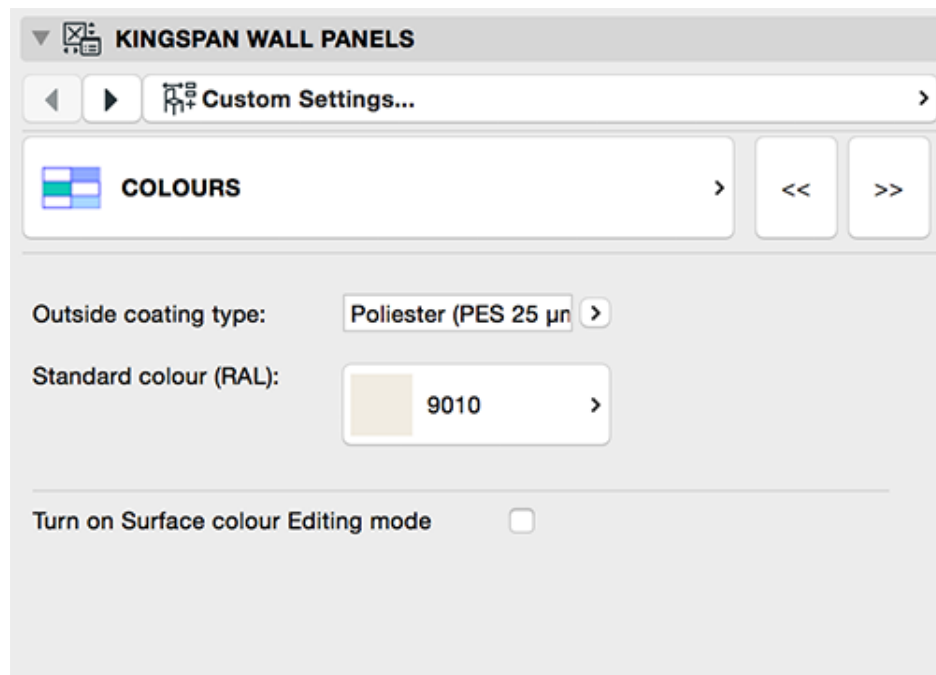
In this tab page User can set one colour to all panels using a set of **Standard colours (RAL)** popup list. The set depends on type of Outside Coating type parameter. Choosing Custom colours enables all ARCHICAD's Surfaces avaliable in a project. (In this case it is suggested to contact local Kingspan Consultant to check availability of non-standard colours.
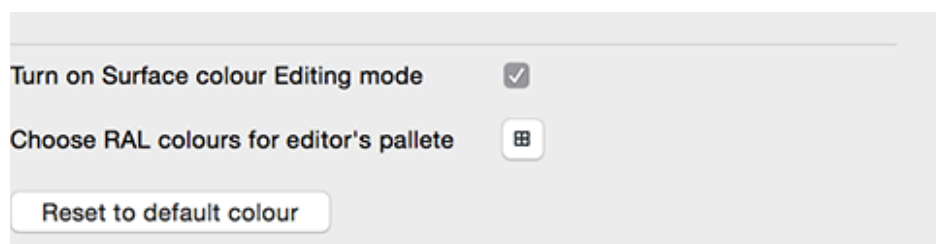

Panels colours editing mode: activates editing mode allowing to assign colours to individual panels. The symbol of Panel object on a floor plan changes to elevation view and RAL colours pallete appears. Moving hotspots from pallete to specific panel will change its colour accordingly.

Choose RAL colours to editor's palette: allows to pick five colours from the set an place them in the palette.

Reset to default colour: resets all colours to default one.

7.1.6. CORNERS SOLUTION

From popup menus User can choose solution for corners between neighbouring objects. User can choose from four options:
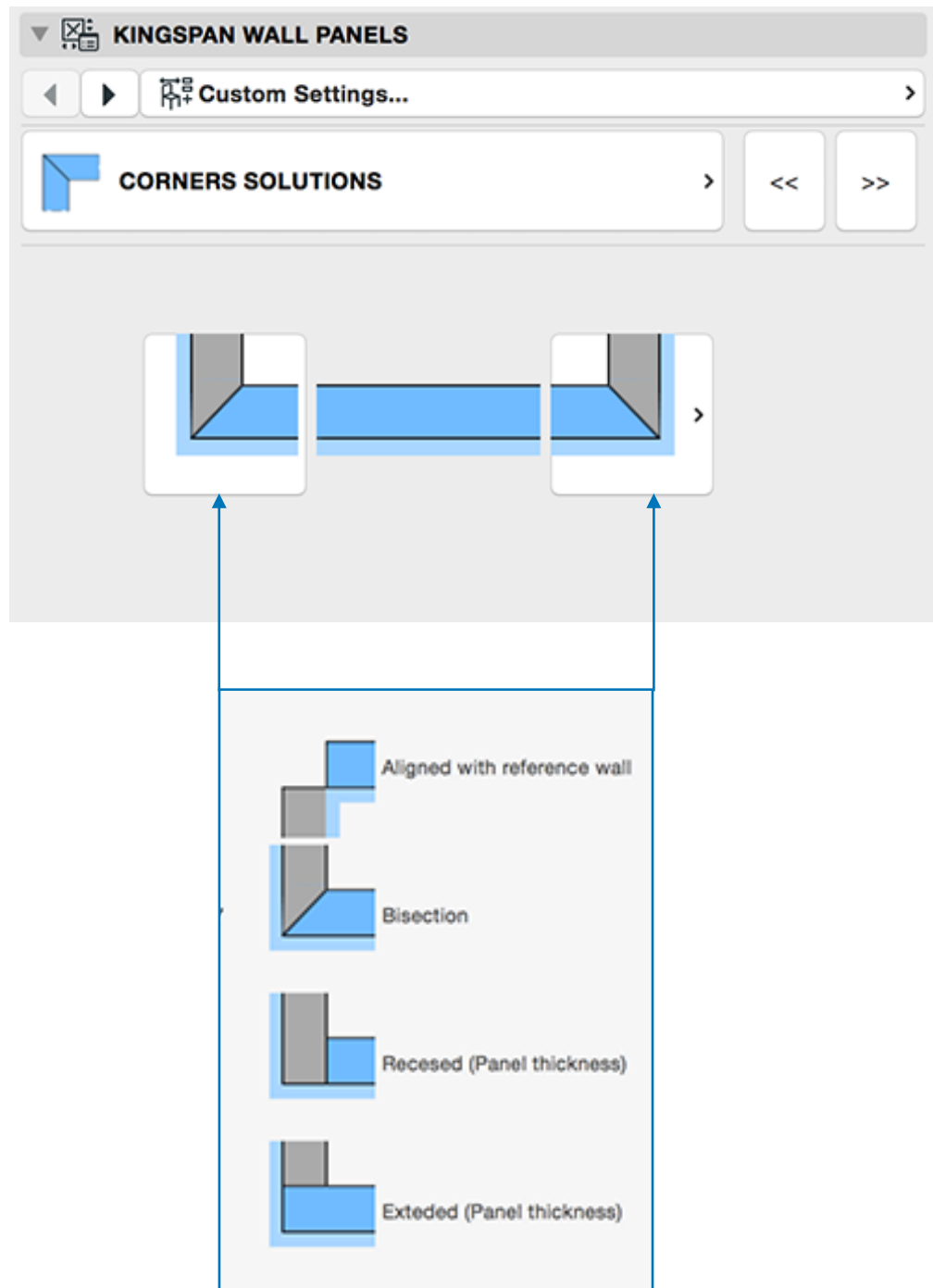
CAUTION: If neigbouring reference wall has no Panel object attached, changes will be visible after reopening the object's settings window.

7.1.7. SYSTEM COMPONENTS

In this tab page user can setup system flashings for characteristic edges of KINGSPAN'S Panel Object. To access parameters of those edges use three buttons at the top of the page:
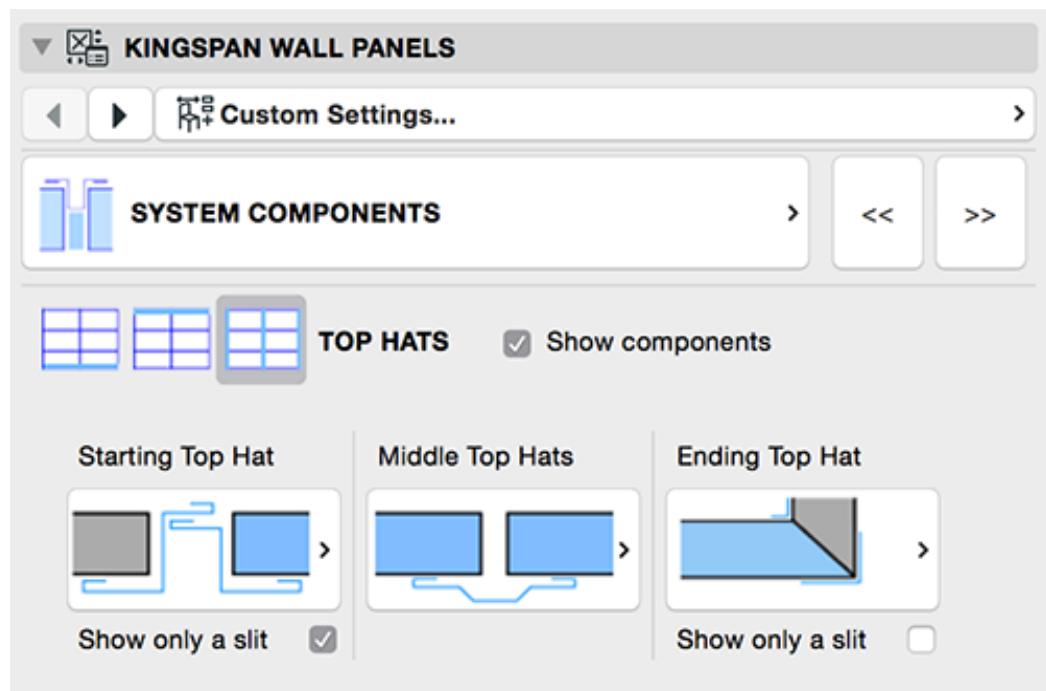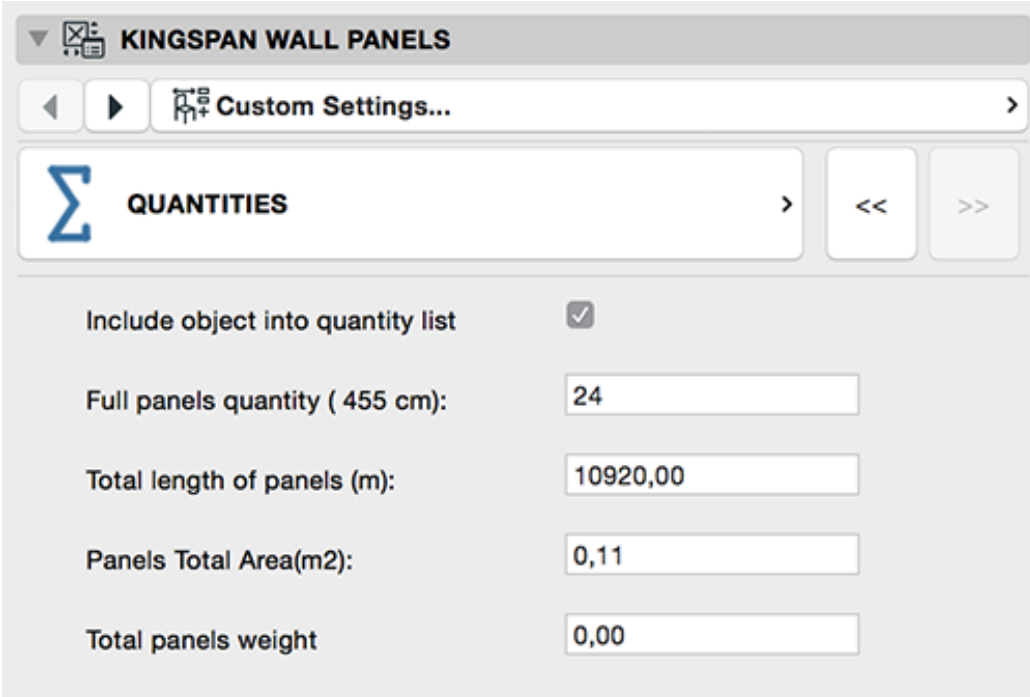

Plinch Flashing (horizontal bottom edge)

Cornice Flashing (horizontal top edge)

Top Hats (Vertical stripes: starting corner, middle stripes and end corner)

Show components: displays/hides flashing components.

Show only a slit: In case of two parallel reference walls this option hides component but leaves the space (slit) in order to avoid overlapping of two components. By default the end corner is set to 'Show only a slit' while the start corner shows full component (option 'Show only a slit' is turned off)

7.1.8. **QUANTITIES**

This page displays basic quantity properties such as:

Number of full panels

Total length of panels

Total area of panels

Total weight of panels

Option **Include object in lists:** includes/excludes object in ARCHICAD's lists calculations.

8. LISTS AND INTERACTIVE SCHEDULES IN ARCHICAD

8.1. ARCHICAD offers two systems of scheduling properties and quantities: Lists and Interactive Schedules. KINGSPAN Library offers both predefined solutions.

8.2. In the menu Documentation/Component List User can find two lists:
- KINGSPAN - FLASHINGS
- KINGSPAN - PANELS

8.3. Interactive schedules are available as separate xml files that can be imported to project through Interactive schedules schema setting dialog.