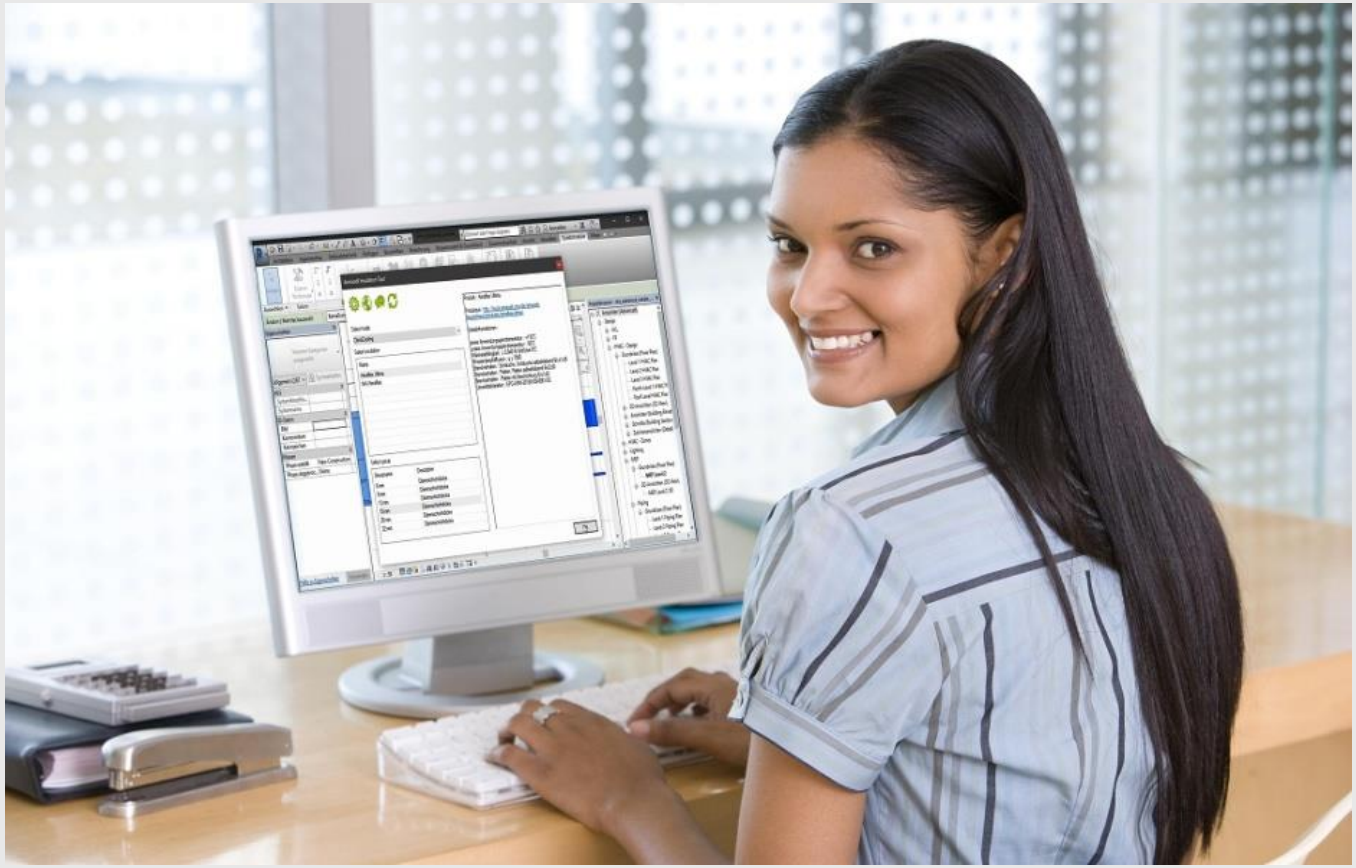
Armacell's plug-in for BIM
User's Manual



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Configuration of insulation with Armacell plug-in

- ✓ The configuration process uses the functions and capabilities of Revit.

- ✓ With Armacell's plug-in the designer selects :

- the type of system in which they will add insulations
- the material of the pipes from which the system will be made
- minimum insulation thicknesses for the selected range of pipe diameters

- ✓ For each range of pipe diameters the designer defines the number of layers and Armaflex insulation material.

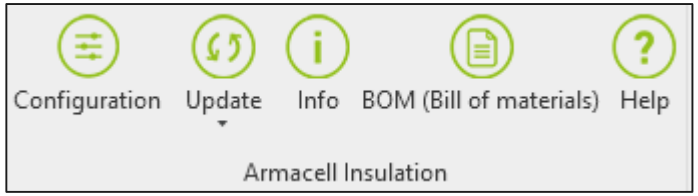
- ✓ The configuration created by the designer can be used in subsequent projects. The export/import of configurations is possible.

New Armacell plug-in

- ✓ The plug-in will be available for downloading from armacell home page and Autodesk store.
- ✓ It works with Windows 7, Windows 10 and Revit 2017, 2018, 2019, 2020, 2021
- ✓ The software uses local languages (DE, EE, FR, PT, IT, NL, SE, NO, DK, FIN, PL, CZ, HU, RO, RU, SL, HR, SRB)
- ✓ Plug-in can be updated online, when a new version is available.

Armacell plug-in main Tools

Armacell plug-in tools are displayed in the Add–Ins tab



- *Configuration* - allows creating your options for adding insulation to pipelines and ducts from System type with defined parameters

- *Update* - Update of already designed pipes and ducts (with or without insulation)

- *Info* - displays information about assigned insulation for the selected object

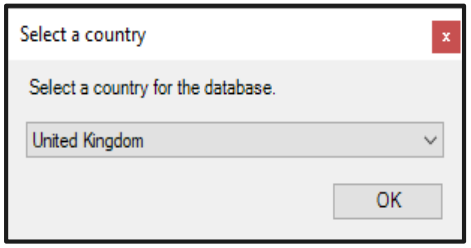
- *BOM (Bill of materials)* - Creates a bill of insulation materials in the form of a table

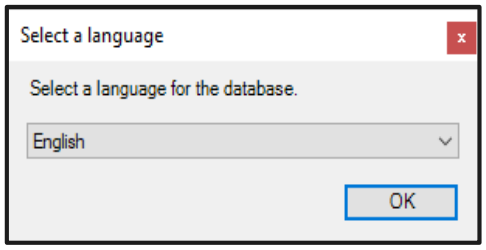
- *Help* - plug-in version info, and updates,

Armacell plug-in Tool - Configuration

Start the work with the plug-in by setting the product parameters for insulating pipes/ducts

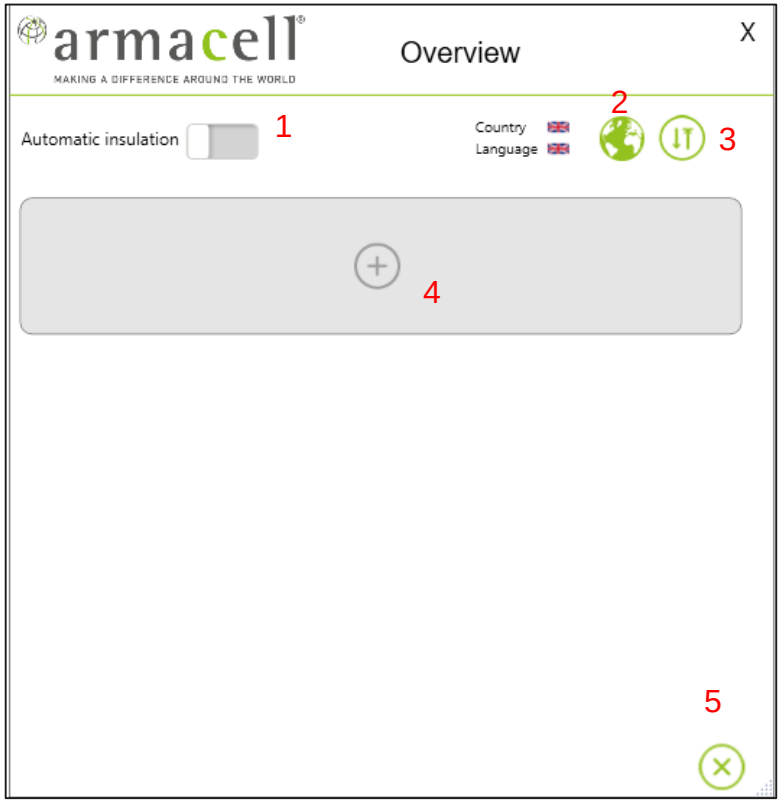
- Press the configuration button
- Select the Region to load the relevant database, and the language (it is assigned depending on the previous selection of the region)





Armacell plug-in Tool - Configuration

The proper configurator window opens :

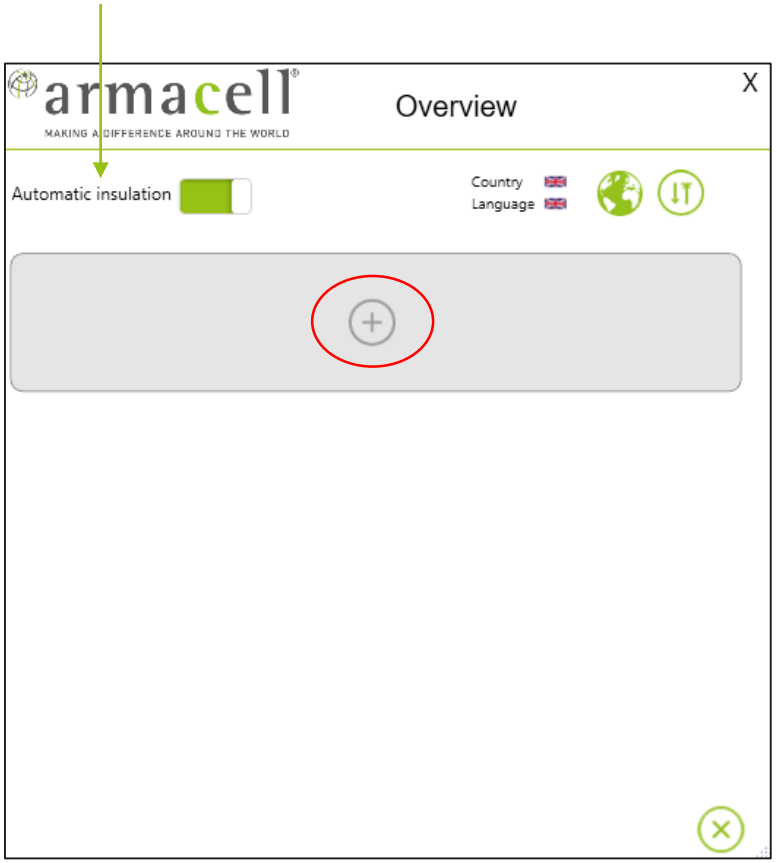


Functions of the Buttons

1. Enable to turn on automatic addition of insulation to the model
2. Change of the country and language
3. Import/Export of saved configuration
4. Add a new configuration
5. Save configuration

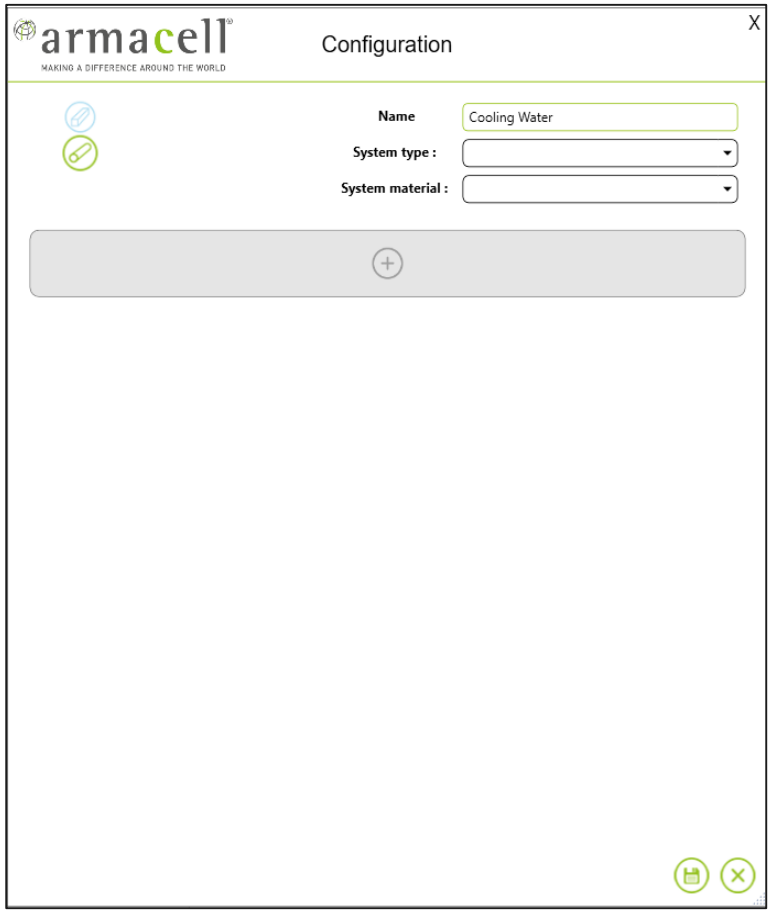
Armacell plug-in Tool - Configuration

Turn on the Automatic Insulation button



- Now you can start the process of adding a new configuration by pressing the button “Plus”

Armacell plug-in Tool - Configuration

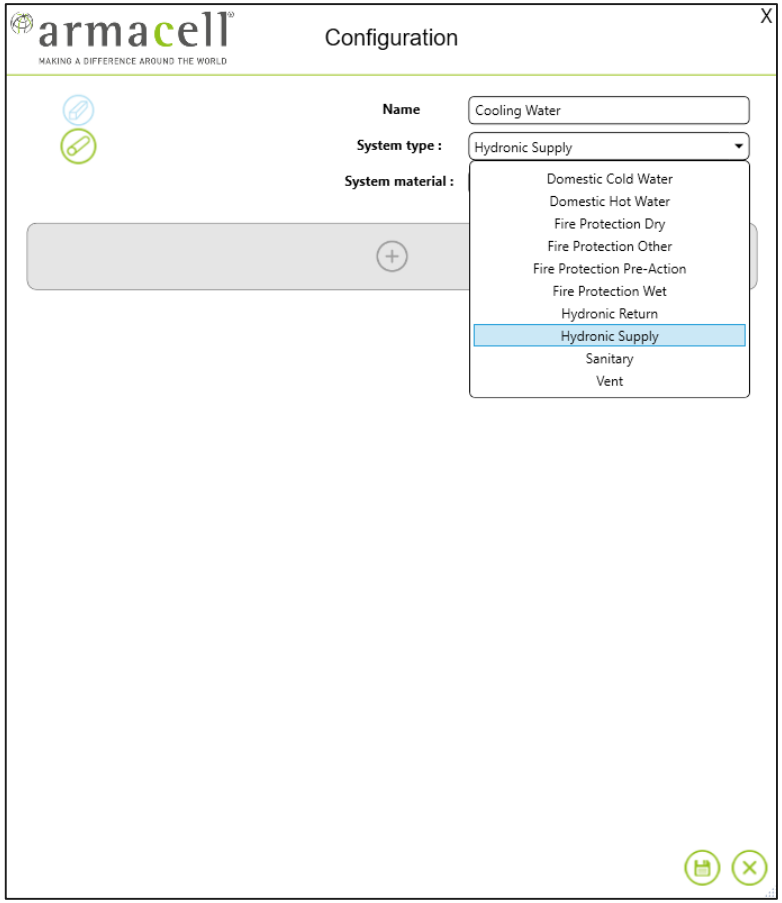


If you work with pipes green icon for pipes should be highlighted

if you work with ducts blue icon for ducts should be highlighted

- Now you can enter a new configuration name in the configurator window
- *Example „Cooling Water”*

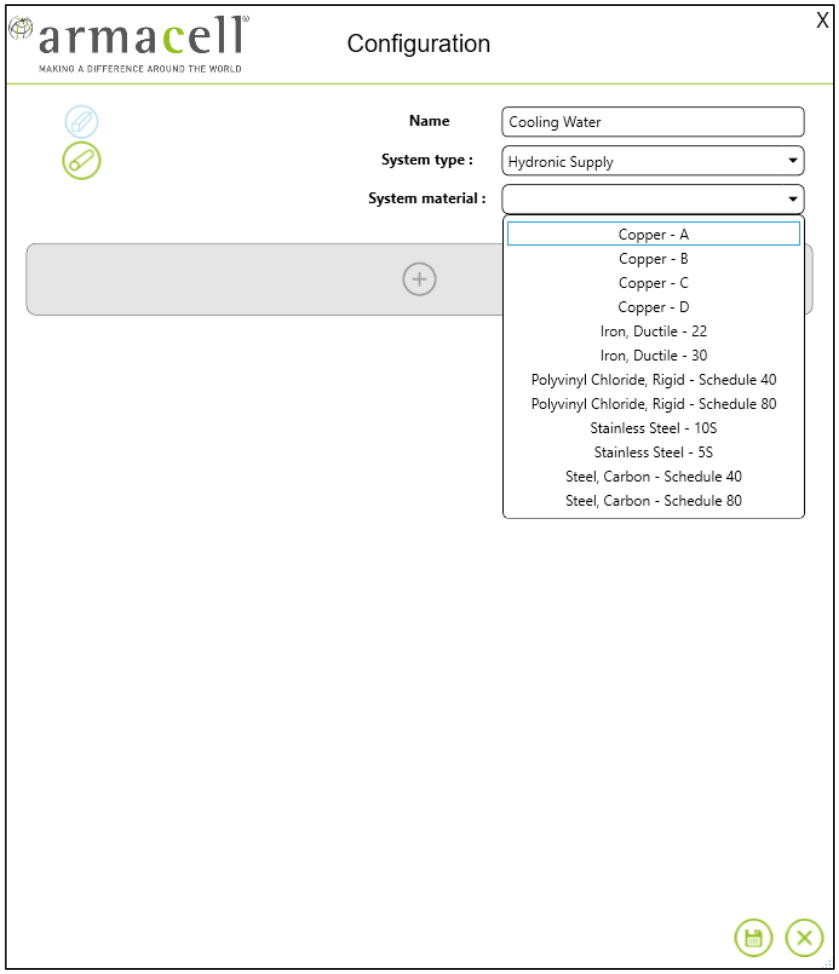
Armacell plug-in Tool - Configuration



- Next, select the pipe System type to which the insulation will be added. The selection should be made from a list of systems read from the Revit project.
- *Example : Hydronic Supply*

- If you have previously selected the „Duct" option, the program will display duct's systems instead of pipe systems.

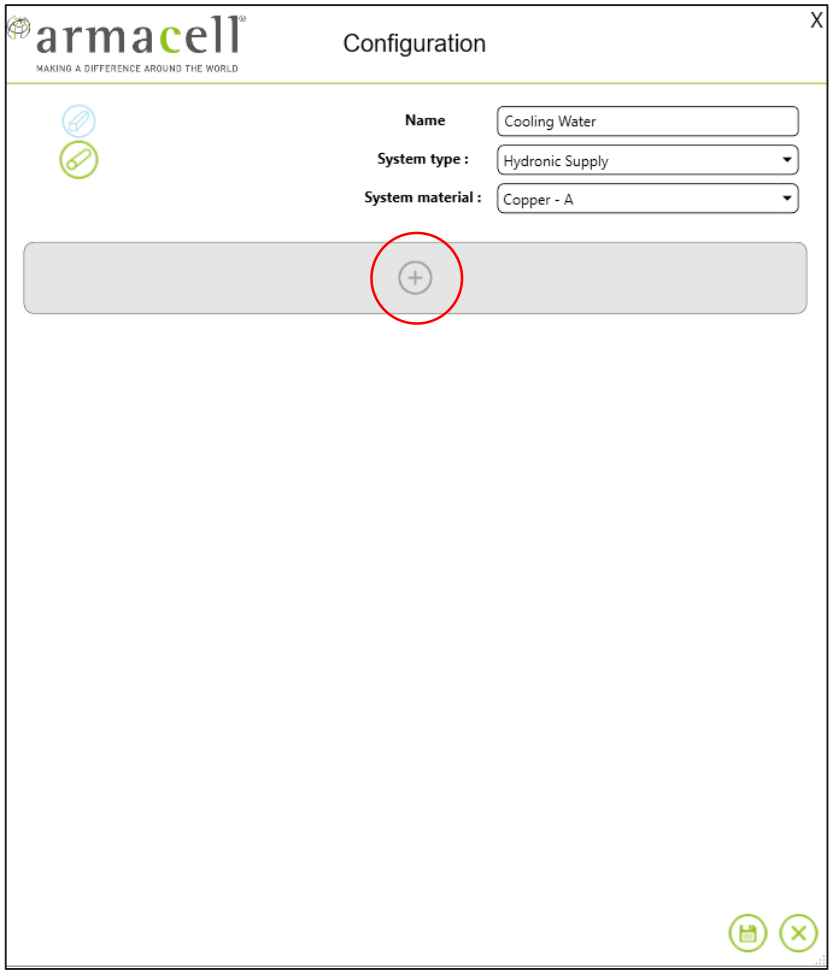
Armacell plug-in Tool - Configuration



- In the second drop down, select the material of the pipes to be insulated. They are directly used in specific *pipe types. The list of pipe material is read from the Revit project*
- *Example Copper A*

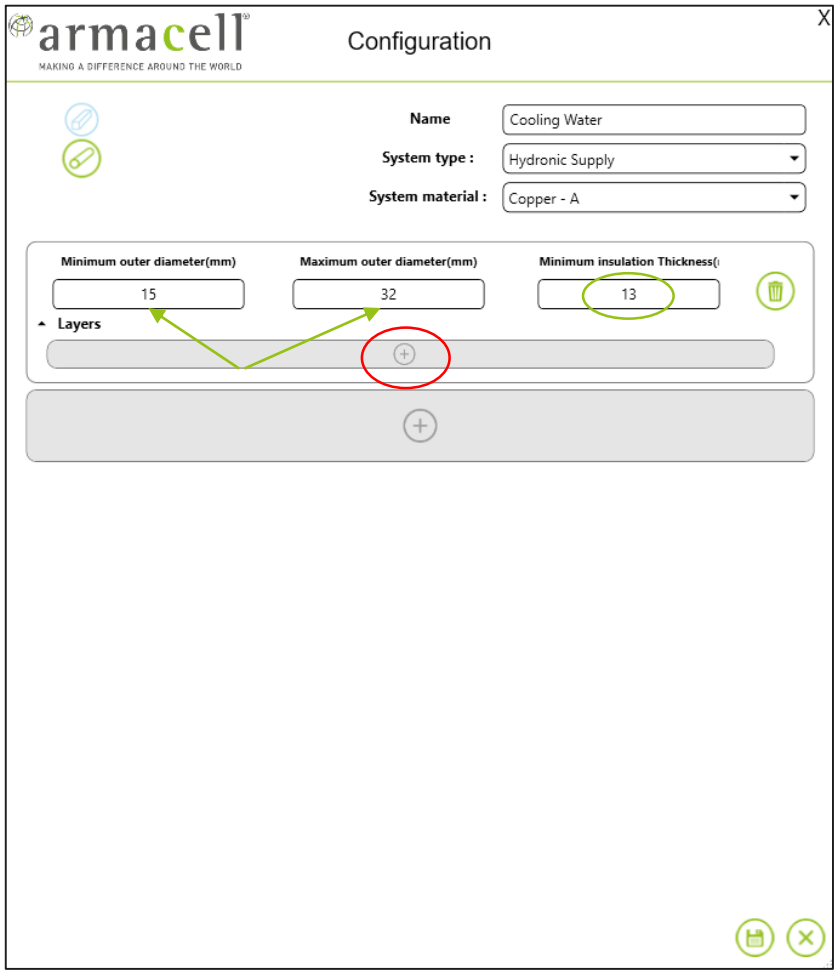
- If you have previously selected the „Duct" option you do not select Material.

Armacell plug-in Tool - Configuration



- Now you can start adding ranges of diameters, for which specific types of insulation will be assigned, by pressing „Plus” button

Armacell plug-in Tool - Configuration



- In subsequent windows, specify the minimum and maximum external diameter for your pipe Range and the minimum insulation thickness that will be added to the pipes from your Range.
- Example minimum OD 15 mm, max. OD 32 mm, insulation thickness 13 mm.
- When configuring the insulation for the duct, do not enter the diameter values (leave the number 0 in the windows) The entire selected ventilation system will be insulated with one thickness.

- Now you can start defining the insulation for your range of diameters by pressing the ⊕ button

Armacell plug-in Tool - Configuration

You have two options when defining insulation layers for your Pipe dimensions

- **Option 1** The required insulation thickness can be provided by **one layer** of tube or sheet

- **Option 2**. The required insulation thickness is higher that our maximum one layer and has to be provided by **multilayers** of tube or sheets

Armacell plug-in Tool - Configuration

- Defining insulation products for the Layer

You have to select the correct application, product and article:

Trade: *e.g. Refrigeration, air-conditioning and ventilation*

Product: *e.g. Armaflex Ultima*

Article : *e.g. Tube 13mm*

- *Save the changes by pressing button*

Armacell plug-in Tool - Configuration

- **Option 1** The required insulation thickness can be provided by **one layer** of tube or sheet:

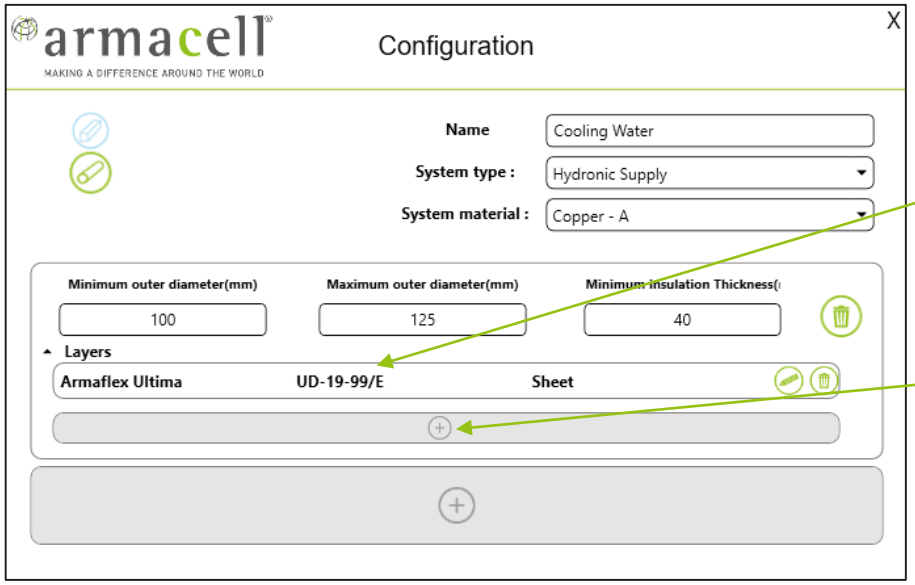
- After selecting the article for the Layer the configuration window for Range OD 15-32 mm will look like the one on the left side

Save the configuration for your Range by pressing button „Save”

Cancel the configuration for your Range by pressing button “Cancel”

Armacell plug-in Tool - Configuration

- **Option 2**. The required insulation thickness is higher than Armaflex maximum one and has to be provided by multilayers of tube or sheets



✓ Add and **define the I-st layer** in the way described in Option 1

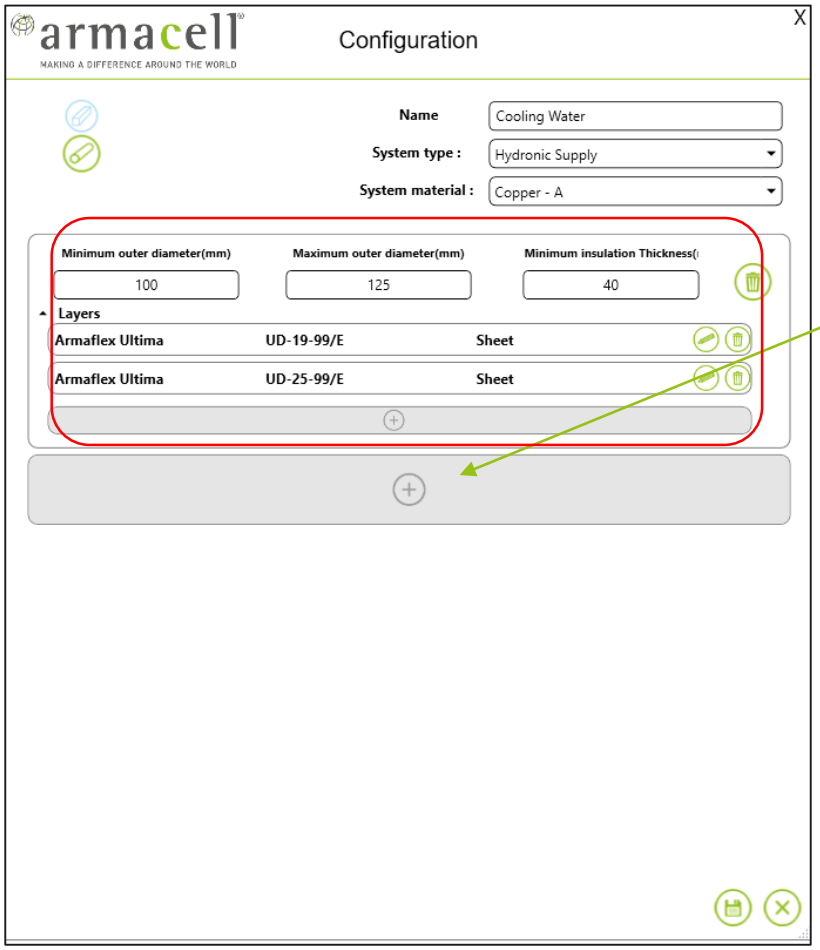
✓ than you add and define the second layer by pressing the button + “Add Layer”

Armacell plug-in Tool - Configuration

- **Option 2**. The required insulation thickness is higher than our maximum one and has to be provided by multilayers of tube or sheets

- When defining the second Layer select the correct article. The total thickness of first and second layer has to be bigger that "set minimum insulation thickness" in our example 40 mm). For bigger thickness you may need more layers.
- Save the configuration of your range by pressing button "Save"
- Cancel the configuration of your range by pressing button „Cancel"

Armacell plug-in Tool - Configuration



- After defining the first Range of pipes diameters (100-125 mm) you can add the next Range of pipes by pressing the lower (+) buton
- Define the minimum insulation thickness and add the Layers in the same way like you did for the first Range

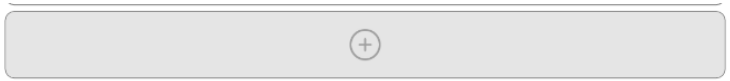
Armacell plug-in Tool - Configuration

- After adding and defining layers of two pipe's ranges, the configuration window looks like this:

- You can delete with the button the pipe ranges and the Layers

- You can edit and make corrections to your layer by pressing button

- You can continue your work by adding next pipe range, by pressing ⊕ button



After all the settings have been made, save the configuration with the button at the bottom

Armacell plug-in Tool - Configuration

- The configurator window now presents all defined sets for “Cooling Water”. In this case, only the insulation for copper A pipes OD from 100 mm do 150 mm in the *Hydronic Supply* system type will be added.

allows to switch off the configuration

allows to edit the configuration

allows to delete configuration

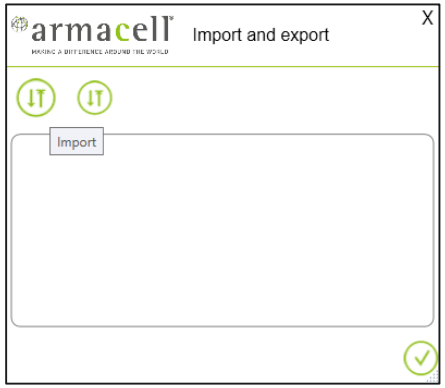
allows to save configuration

allows to start the new configuration (for the new system type , or new pipe material)

Armacell plug-in Tool - Configuration

- Import/Export button

- Select Export button and save your configuration under own name in your files.

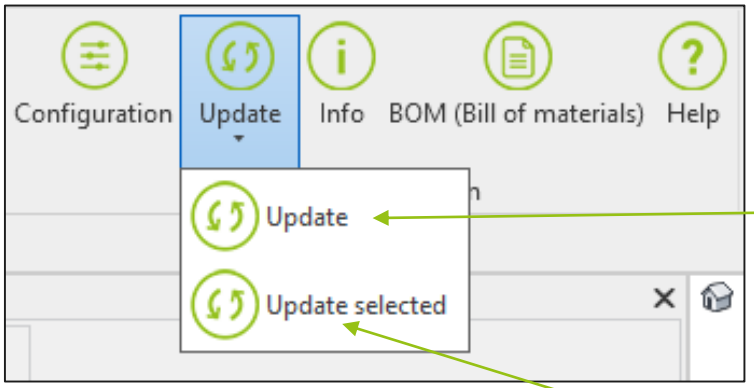


- Select Import button and open required configuration in your project.
- Now the cofiguration will work for this project.

Armacell plug-in Tool - Update

If you have project with designed pipe or ducts objects in a Revit without insulation and set your new Configuration, press *Update button* .

All the pipes and ducts from your System type and with consistent material specified in the configuration will be automatically insulated.

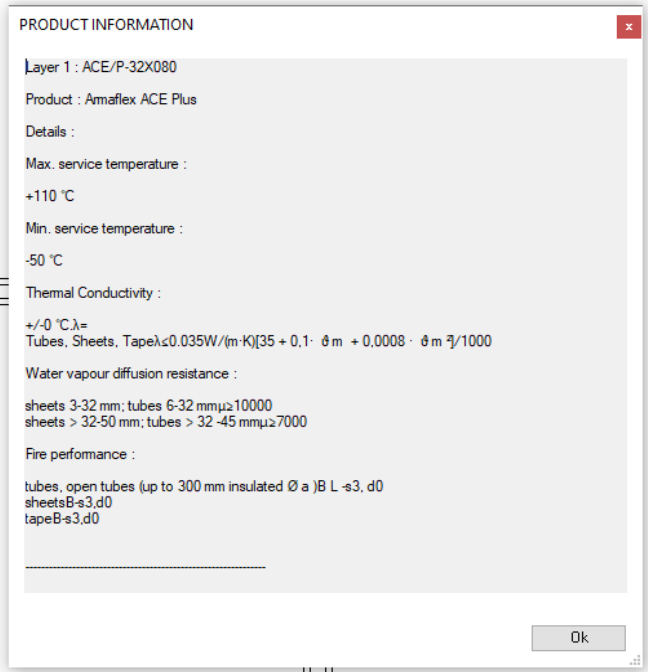


- If you made changes in your Configuration press top Update button.
  All the changes will be implemented to the project.
- You can choose the lower update button to make updates only to the selected objects

Armacell plug-in Tool - Info

You can display information about assigned insulations for the selected object.

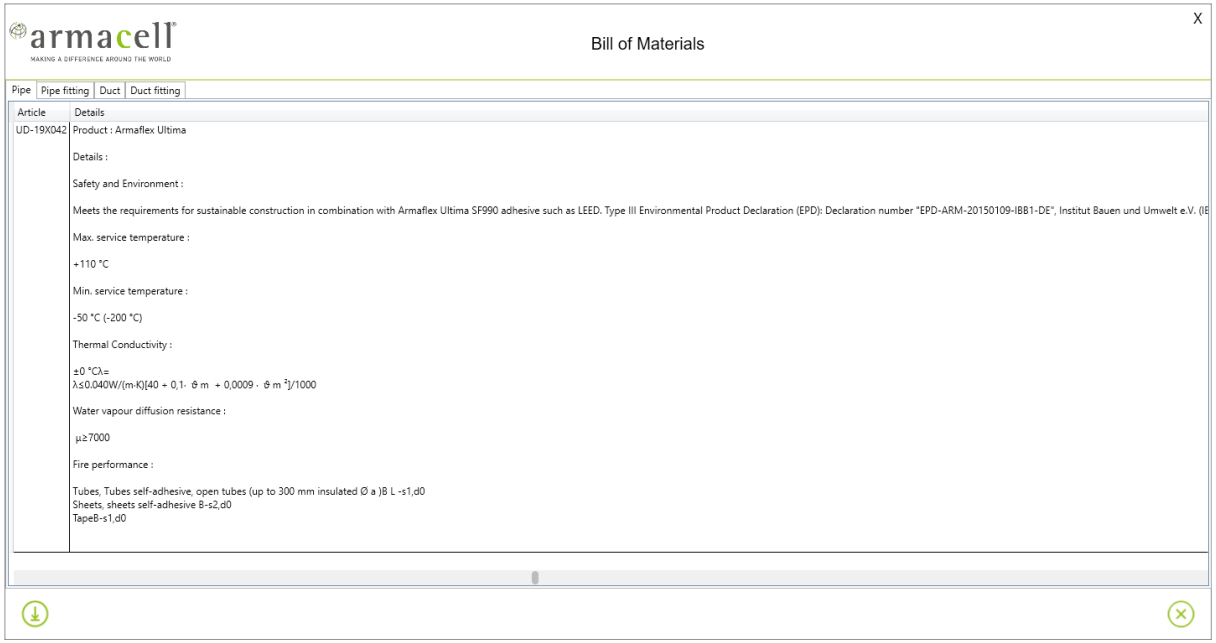
Press button ‚info”and click on the selected insulated pipe or duct. You will see the window with information about the assigned Armacell’s insulation



Armacell plug-in Tool - BOM

You can display a bill of materials in the form of a table for pipes, pipe fittings, and ducts using button. We have separate view for pipes, pipe fittings and ducts and ducts fittings.

The BOM list contains article number, product name and product parameters, product quantities: tubes in metres, sheets in m^2. Specified material quantities also include material for layers used in multilayer insulation.



Material list for pipe insulation

Article	Details	Amount Tube(m)	Amount Sheet(m²)
UD-19X042	Product : Armaflex Ultima	1,42	0
UD-32X089	Product : Armaflex Ultima	1,3	0
UD-09-99/E	Product : Armaflex Ultima	0	0,66

Material list for fittings insulation

Article	Details	Amount Tube(m)	Amount Sheet(m²)
UD-19X042	Product : Armaflex Ultima	0,08	0

The table allows an export to Excel. The lists of pipes, ducts and fittings will be displayed separately in the respective Excell sheets.

Armacell plug-in Tool - Help

Using „Help” tool You can display information about plug-in version, you can update your version selecting the highlighted icon

- E-mail connection to Armacell Help desk
- Freequently asked questions
- The history of the plug-in transactions to assist in diagnosing technical problems

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MAKING A DIFFERENCE AROUND THE WORLD