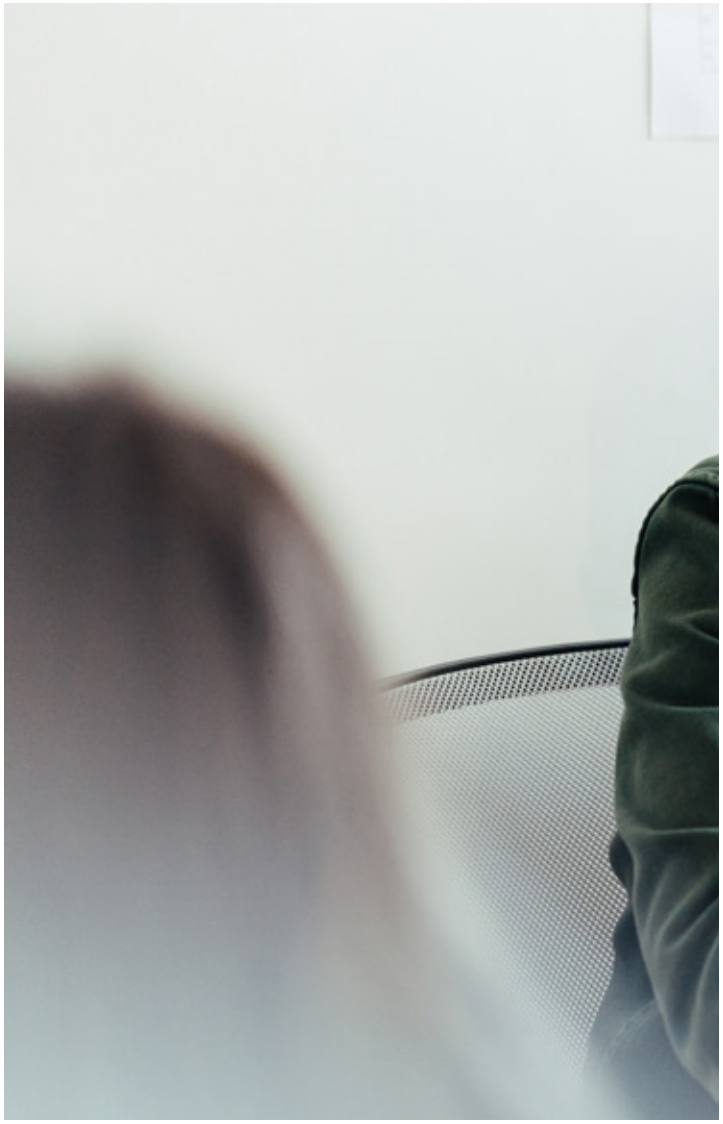
ARMACELL PLUG-IN BIM USER'S MANUAL



armacell®

MAKING A DIFFERENCE AROUND THE WORLD

Contents

Configuration of insulation with Armacell plug-in

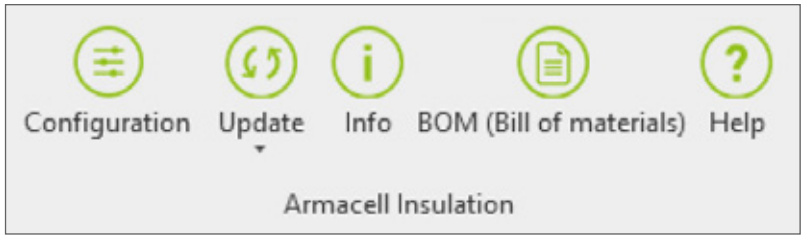
- The configuration process uses the functions and capabilities of Revit
- With Armacell's plug-in the designer selects:
  - the type of system in which they will add insulations
  - the material of the pipes from which the system will be made
  - minimum insulation thicknesses for the selected range 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's homepage and Autodesk store
- It works with Windows 10 and 11 and Revit versions 2020, 2021, 2022, 2023 and 2024
- 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 availabe

Armacell plug-in main tools

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

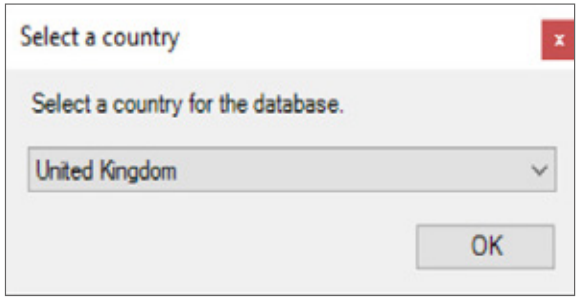


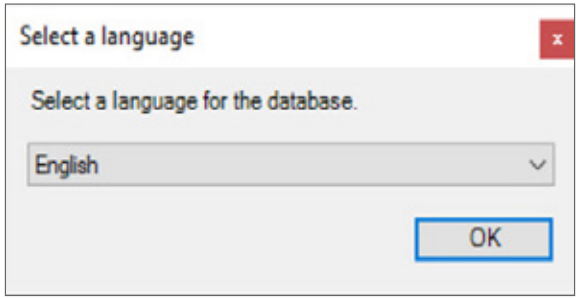
- **Configuration** - allows creating your options for adding insulation to pipelines and ducts from system type with defined parameters
- **Update** - update of already designed pipes and ducts (with or without insulation)
- **Info** - displays information about assigned insulation for the selected 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

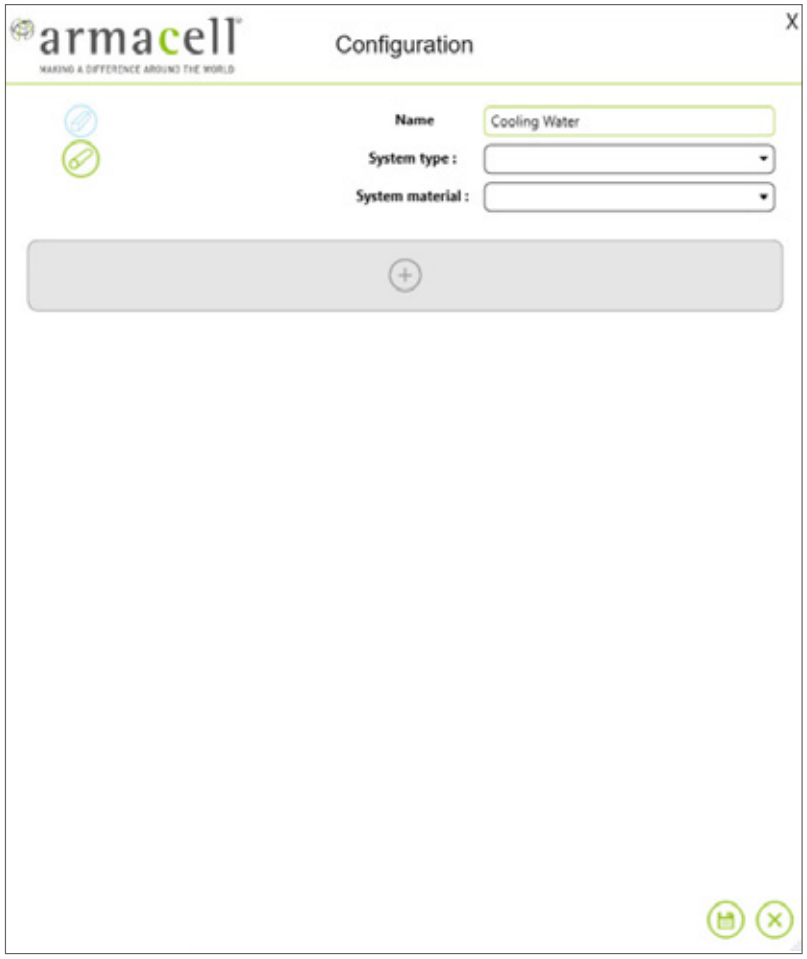
1. Enable to turn on automatic addition of insulation to the model
2. Change of the country and language
3. Import/Export of saved configuration
4. Add a new configuration
5. Save configuration

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

Armacell plug-in tool - configuration

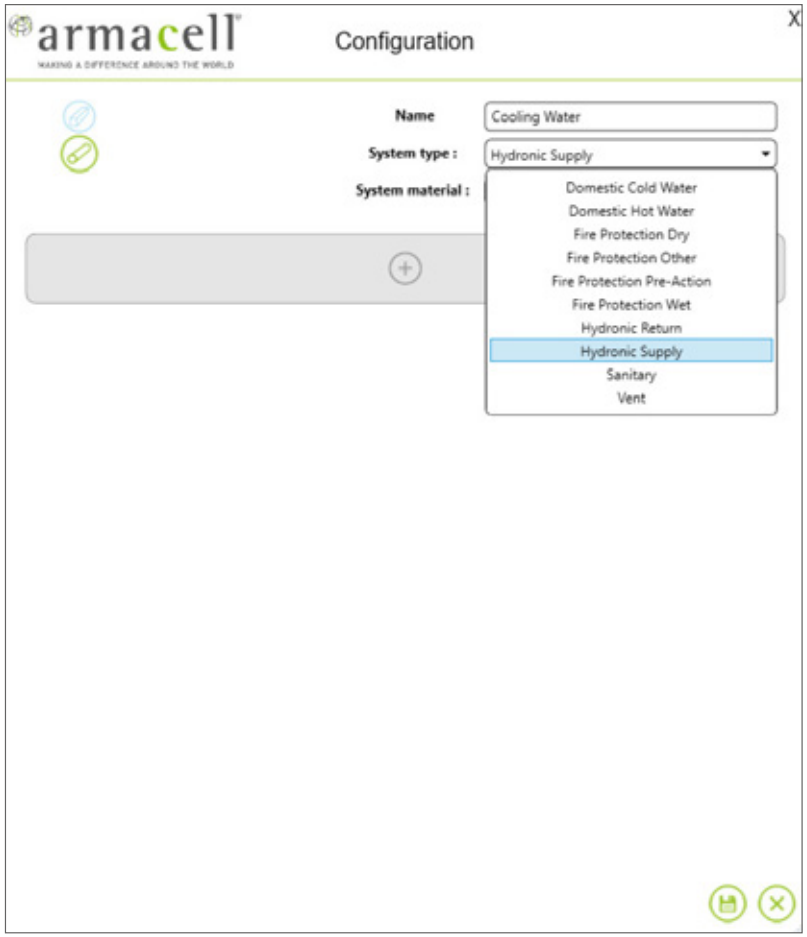


If you work with **pipes** green icon for pipes should be highlighted

If you work with **ducts** blue icon for ducts should be highlighted

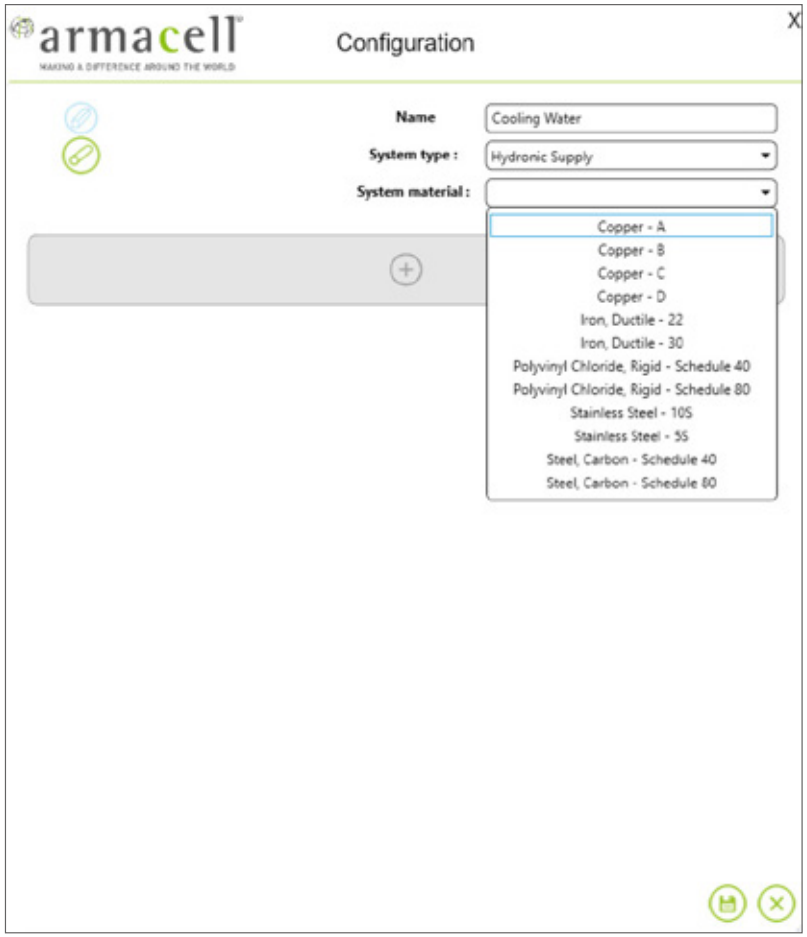
- Now you can start the process of adding a new configuration name in the configurator window
- Example **Cooling Water**

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 programme will display duct systems instead of pipe systems

Armacell plug-in tool - configuration

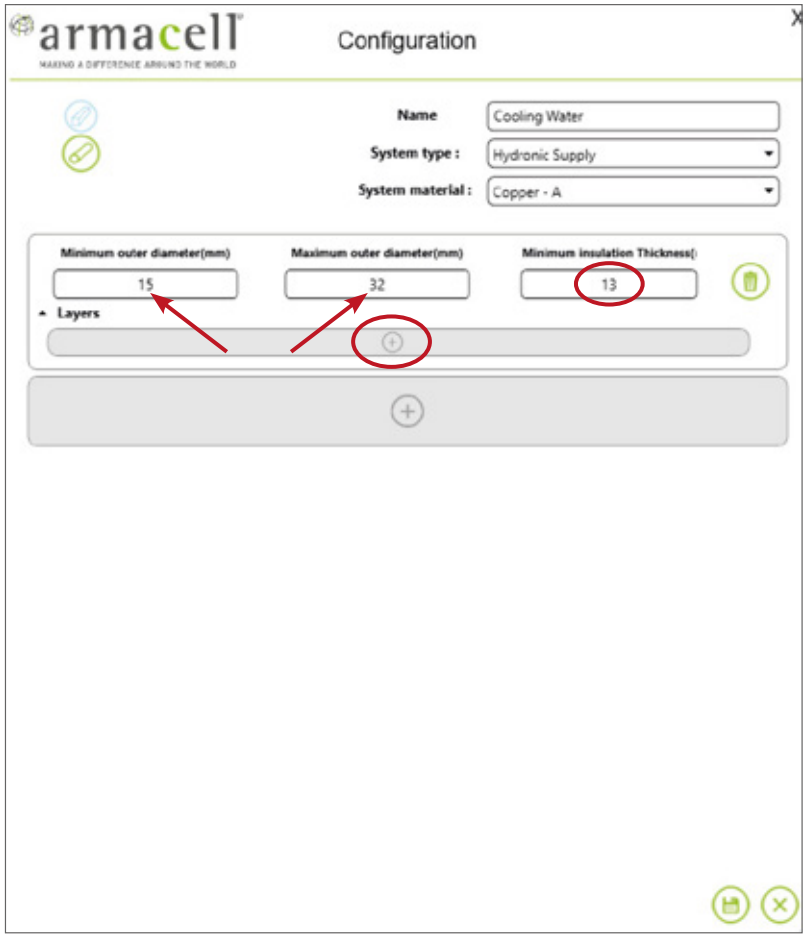


- In the second drop down, select the material of the pipes to be insulated. They are directly used in specific pipe types. The list of pipe material is read from the Revit project
- Example: **Copper A**
- If you have previously selected the **duct** option you do not select **material**

Armacell plug-in tool - configuration

- Now you can start adding ranges of diameters, for which specific types of insulation will be assigned, by pressing ⊕ 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 15mm, max. OD 32mm, insulation thickness 13mm
- 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 than our maximum one layer and has to be provided by **multilayers** of tubes or sheets

Armacell plug-in tool - configuration

Defining insulation products for the layer

Select the correct application, product and article:

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

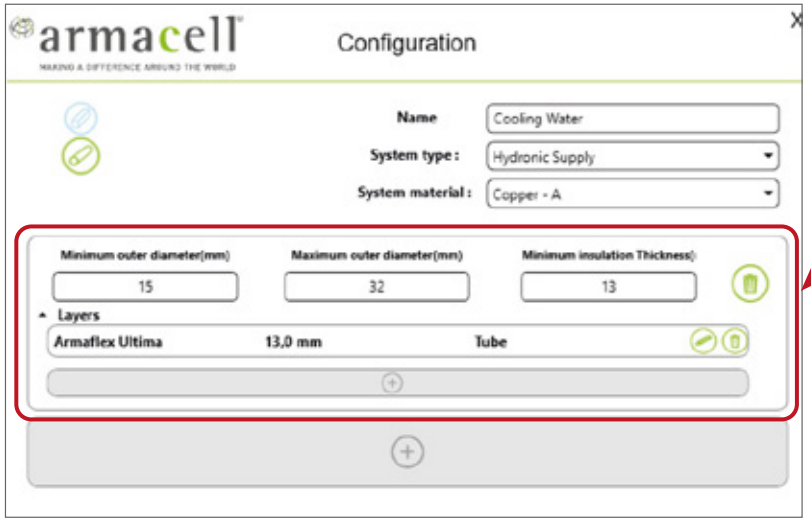
Product: e.g. **ArmaFlex Ultima**

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



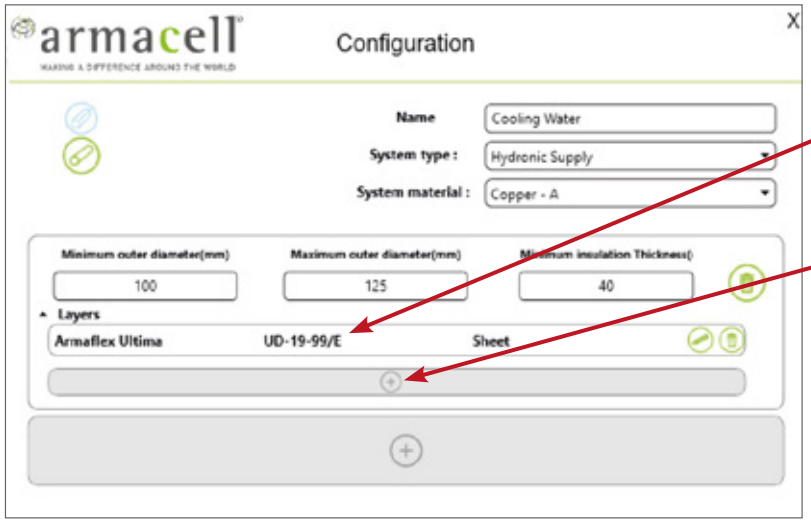
- After selecting the article for the layer the configuration window for range OD 15-32mm will look like the one on the left side

  Save the configuration for your range by pressing the **save** button

  Cancel the configuration for your range by pressing the **cancel** button

Armacell plug-in tool - configuration

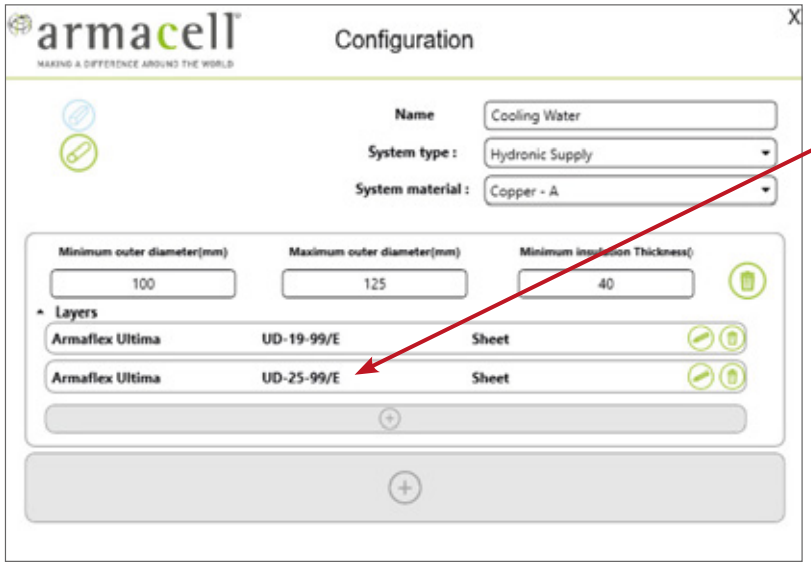
- **Option 2** - The required insulation thickness is higher than ArmaFlex maximum one and has to be provided by **multilayers** of tubes or sheets



- Add and **define the first layer** in the way described in Option 1
- Next, 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 tubes or sheets

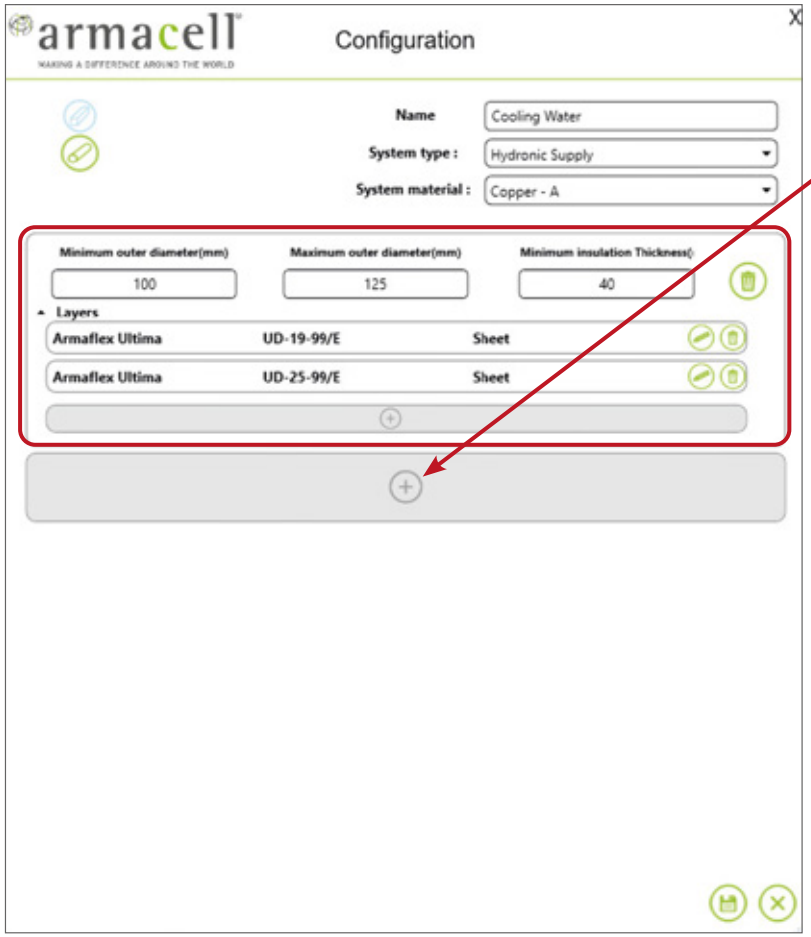


- When defining the second layer select the correct article. The total thickness of first and second layer has to be bigger than "set minimum insulation thickness" (in our example 40mm). For a bigger thickness you may need more layers.

- Save the configuration for your range by pressing the **save** button

- Cancel the configuration for your range by pressing the **cancel** button

Armacell plug-in tool - configuration



- After defining the first range of pipes diameters (100-125mm) you can add the next range of pipes by pressing the lower ⊕ button
- 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** the pipe ranges and the layers with this button

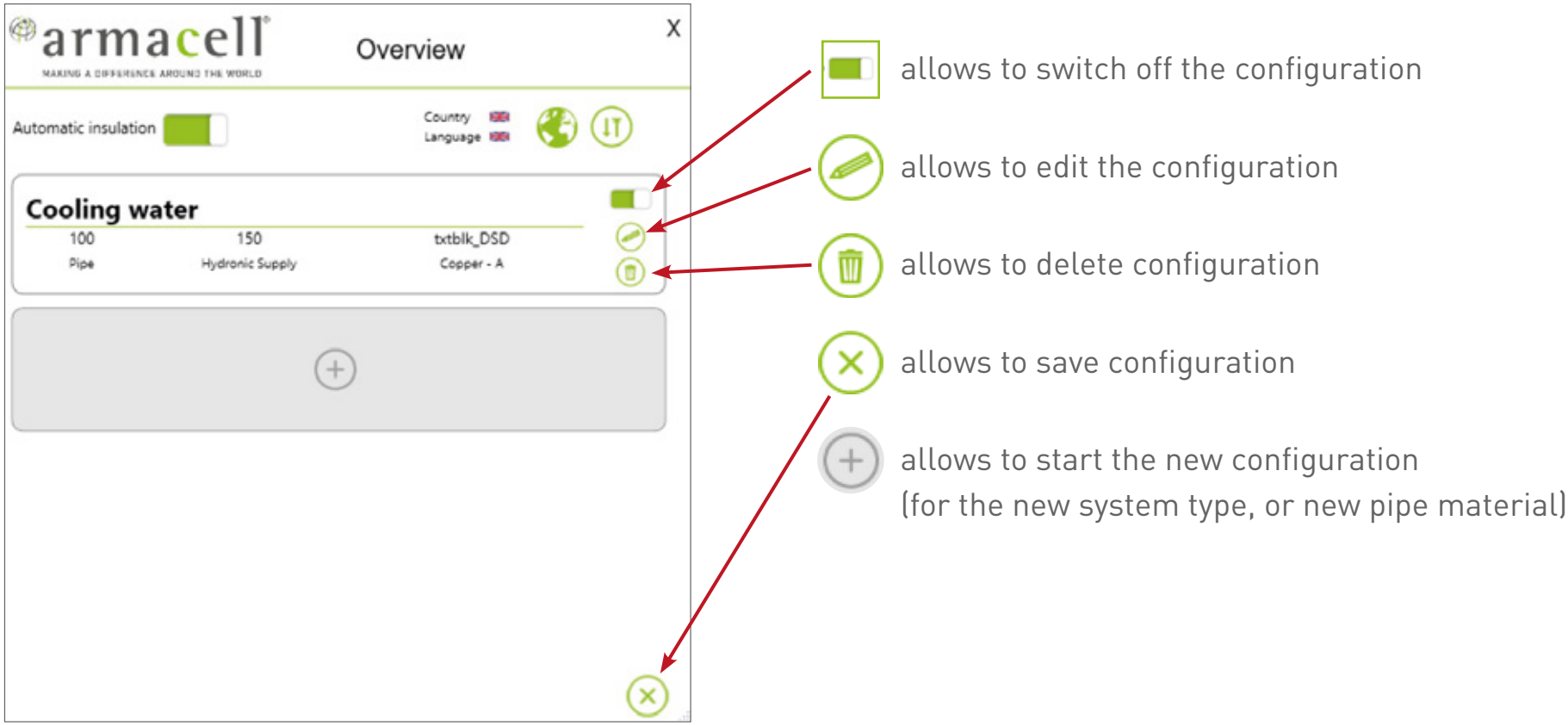
- You can **edit** and make corrections to your layer by pressing this button

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

After all the settings have been made, **save** the configuration with this 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 100mm to 150mm in the hydronic supply system type will be added



Armacell plug-in tool - configuration

Import/Export button

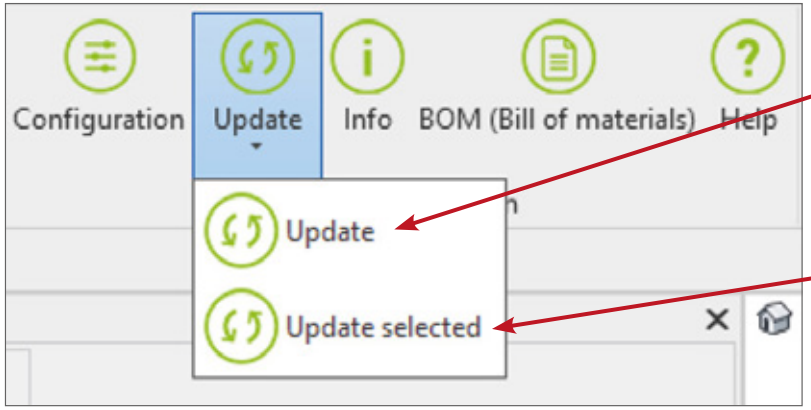
- Select the **export** button and save your configuration under a unique name in your files

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

Armacell plug-in tool - update

If you have a project with designed pipe or duct objects in a Revit without insulation and set your new configuration, press the **update** button

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

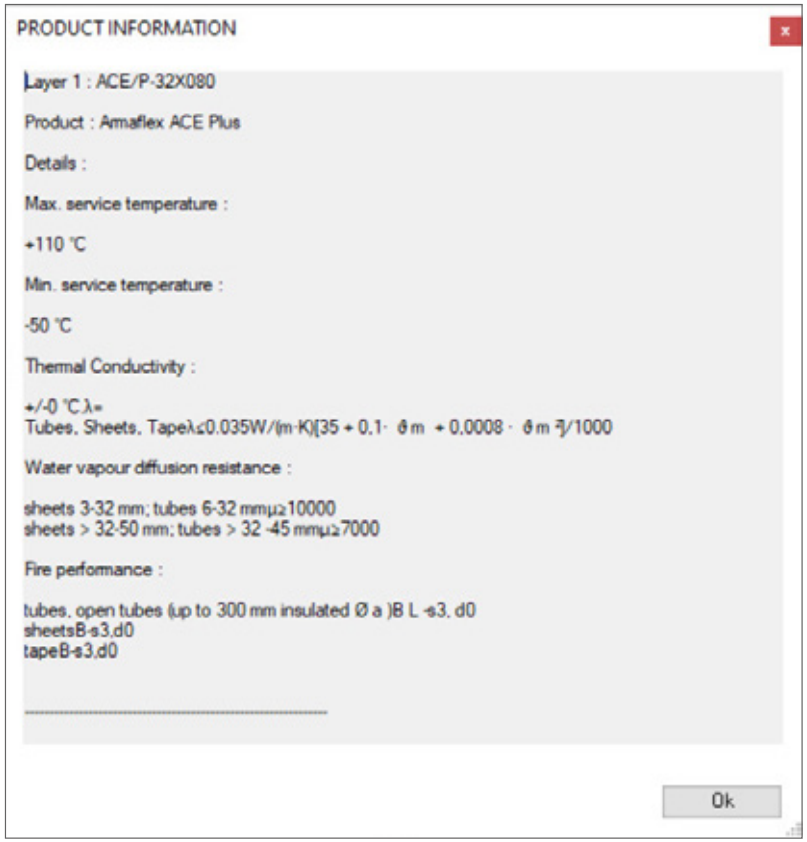


- If you made changes in your configuration press the **top update** button. All the changes will be implemented to the project
- You can choose the **lower update** button to make updates only to the selected objects

Armacell plug-in tool - info

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

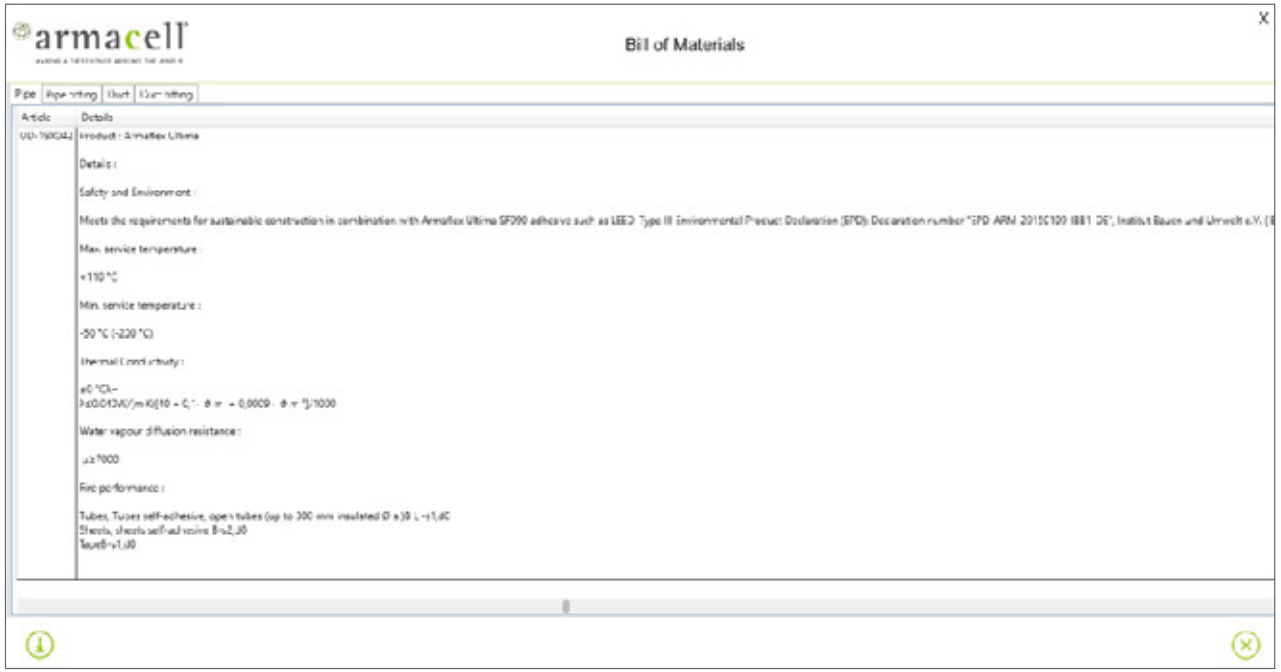
Press the button **info** and click on the selected insulated pipe or duct. You will see the window with information about the assigned Armacell insulation.



Armacell plug-in tool - BOM

You can display a bill of materials (BOM) in the form of a table for pipes, pipe fittings, and ducts using the button. We have a 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 m². 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 Excel sheets.

Armacell plug-in tool - help

With the **Help** tool you can display information about the plug-in version, and update your version selecting the highlighted icon

E-mail connection to Armacell Help desk

FAQ Frequently asked questions

LOG History of the plug-in transactions to assist in diagnosing technical problems

ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,300 employees and 25 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

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