

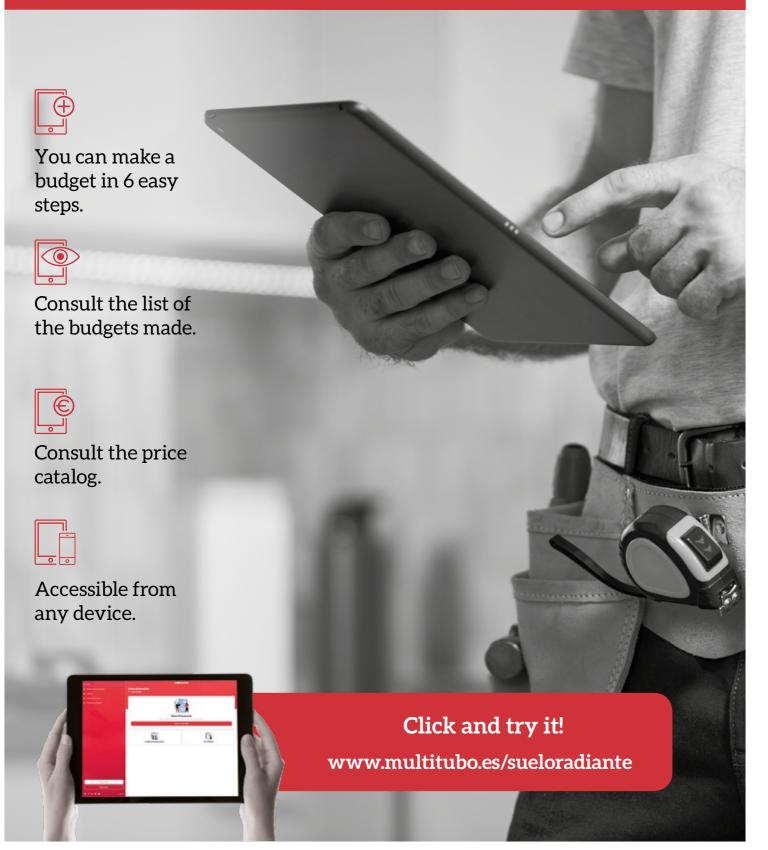
AIS KLIMA

The most auto adhesive system on the market

2021

AIS

NEW UNDERFLOOR HEATING BUDGET CALCULATION TOOL

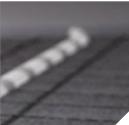


We develop the safest, most efficient and complete solutions on the market.









INDEX

O AIS KLIMA Underfloor heating system

- AIS Klett Auto-adhesive system
- 8 AIS Klett Insulation panel
- 8 AIS Klett Pipe
- 9 AIS KLIMA Nubs panel system
 - 9 AIS nubs insulation panel
 - 10 AIS KLIMA Pipe

11 AIS KLIMA Electric system

11 Electric Radiant Floor

12 AIS KLIMA Common elements

- 12 Control
- 14 Manifolds and manifold wall cabinets
- 16 Installation accesories
- 17 Hidraulic Regulation
- 17 Tools

18 AIS Support



AIS KLIMA

The most advanced solution

Even the best products can be perfected. That is why at AIS we have researched and innovated for years to achieve this.

AIS KLIMA is the most competitive underfloor heating solution on the market that offers important advantages for the professionals:

- For installers, because **AIS Klima Klett pipe**, with its self-adhesive velcro taping, is more flexible and allows better fixation.
- For specifiers and designers, because the system meets the thermal insulation requirements of the UNE 1264 standard and allows meeting the CTE's acoustic insulation standards.
- For construction managers, because the ease, quick and cleanliness of assembly considerably reduces times on site.

AIS KLIMA IS THE MOST COMPETITIVE UNDERFLOOR HEATING SOLUTION ON THE MARKET

 It is a complete system consisting of the solutions in underfloor-cooling high performance, which are integrated to achieve a comfortable, safe and energy efficient installation.

Our underfloor heating system

AIS KLIMA KLETT

certified by AENOR

001/007278 and 001/007279



Our AIS Klett system is the most self-adhering system with the possibilities for construction and rehabilitation projects.

Panel AIS Klett **Autoadherente**

It is a **smooth compact panel based on insulating** materials (EPS and graphite), with a thin fiber sheet in the surface area that allows the Klett pipe to be fixed by simple contact. The panel is supplied in rolls for quick installation.

- Fiber sheet on the smooth plate, with installation guide-grid, resistant to tearing and work processes. It allows a quick layout of the pipes and a flexibility of the circuit design.
- Rolled panel for quick placement on the surface, reducing **installation time and optimising labour cost.** The panel can be easily cut and adjusted to the perimeter of the room.
- Thermal insulation: graphite improves insulating capabilities allowing high performance with reduces thickness.
- Acoustic insulation: the benefits of Dynamic stiffness,compressibility and thickness makes it possible to comply with the regulations on air noise and impact insulation.
- Low thickness design: with a thickness of only 25mm, it allows maximum use of the available height. Suitable for new contruction or reform, both residential and construction.
- Suitable for new construction or renovation, both in residential construction and tertiary use.



Quick and comfortable installation



Free design

Free design of the circuits and the distance between the tubes.



Valid for all types of works

In single-family and high-rise houses, as well as hotels, offices and other buildings for tertiary use.

AIS Klett Auto-adhesive panel

It is a **7-layer pipe including the velcro self-adhesive taping.** It is made of PERT material (temperature resistant polythylene) that gives it great flexibility and incorporates an intermediate layer of EVOH as an Oxygen anti-diffusion barrier.

The 7 layers of the pipe include 3 intermediate bonding polymer layers plus 4 functional layers which are:



Suitable for installation by a

Tool free

single fitter.

Easy change and correction of circuits



- **PERT base tube,** fully optimised for underfloor heating, is designed to withstand up to 70C continuously and is more flexible than other materials making it faster to install and with higher performance than required in this type of installation.
- EVOH middle layer acts as an oxygen diffusion barrier.
- **PERT outer tube** provides mechanical protection against external agents and work processes, in addition to serving as the basis for the self-adhesive tape.
- Self-adhesive velcro taping allows for quick tube installation by simple contact with the Klett insulation panel.



Not only is it highly innovative, it offers excellent effiency and real benefits.

AIS Klett AUTO-ADHESIVE SYSTEM



Ultraslim Panel AIS Klett, for building sites with height limitations

It is a roll panel with a 2 mm. ultra low profile of thickness.

Its fiber surface and grid **allow immediate adhesion of the Klett pipe** and a quick and comfortable installation.

Ais Klima Ultraslim is especially indicated for renovations where thickness of assembly is very much reduced and underfloor heating-cooling solution is a critical factor.

AIS Klett Insulation Panel



Reference	Description	Dimensions and benefits	Min. Unit for sale			
Klett Graphite insulation panel. Graphite G-EPS roll panel for self-adhesive pipe						
412.07825N	 For mezzanines on heated premises. Thermal and acoustic insulation by impact and air. 	25-2 mm. 12 x 1 m. R-value = 0,78 m ² K/W ΔLw = 28 dB	12 m²			
412.12540N	 For low on the ground, on premises NOT heated. Thermal insulation. 	40-2 mm. 8 x 1 m. R-value = 1,25 m ² K/W	8 m²			

Kleet white Insulating panel EPS. White EPS roll panel, for self-adhesive pipe



412.05625N	Thermal insulation, acoustic impact and air insulation	25-2 mm. 12 x 1 m. R-value =	12 m ²
712.0302311	impact and air insulation	$0,56 \text{ m}^2\text{K/W} \Delta \text{Lw} = 28 \text{ dB}$	12 111

AIS Klett Pipe



Reference	Description	Dimensions and benefits	Min. Unit for sale	Pallet or units per box		
Klett PE-RT EVOH self-adhesive natural white pipe						
116.16240	 7-layer tube with Oxygen diffusion barrier, application 	16 x 2,00	240 m	1680 m		
116.16500	class 4: underfloor, heating and low temperature radiators.	16 x 2,00	500 m	2000 m		



The AIS KLIMA Nubs Panel System is characterised by flexibility and easy installation.

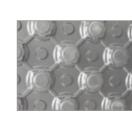
The arrangement and shape of the panels allow the pipes to be installed without the use of additional tools or accessories such as fixing graps.

They are divided into two groups: with a **laminated EPS finish** and **rigid thermoformed EPS finish** that givers the panel greater mechanical resistance and perfectly supports traffic.



AIS KLIMA NUBS PANEL SYSTEM

AIS Nubs Insulation Plate



Reference	Dimensions and benefits	Min. Unit for sale
Nubs Insulation	on Plate. Thermoformed EPS	
411.2542	1400 x 800 mm (1,12 m 2) Base thickness = 20 mm. Total thickness = 42 mm. R-value = 0,75 m 2 K/W	11,2 m ²

Nubs Insulation Plate. Laminated EPS



411.2546	1350×750 mm (1,01 m²) Base thickness = 17 mm. Total thickness = 46 mm. R-value = 0,75 m²K/W	14,17 m ²
411.2563	1350 x 750 mm (1,01m2) Base thickness= 34 mm. Total thickness = 63 mm. R-value = 1,25m²K/W	9,11 m ²

8

Choose the best AIS pipes for your installations

5 layer pipes. They are made of PERT (temperature resistant polyethylene) material that gives them great flexibilty and they incorporate an intermediate layer of EVOH as an antidiffusion oxygen barrier.

AIS KLIMA Pipe



Reference	Dimensions and benefits	Min. Unit for sale	Pallet or units per box		
PE-Xa EVOH pipe, natural white colour, with oxygen diffusion barrier					
117.16240	16 x 2,00	240 m	3840 m		
117.16500	16 x 2,00	500 m	3000 m		

9		
	9	
	1	

PE-Xa EVOH pipe, natural white colour, with oxygen diffusion barrier				
113.20500	20 x 2,00	500 m	3000 m	

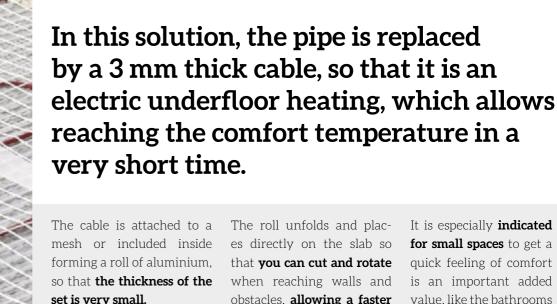


Reference	Description	Dimensions and benefits	Min. Unit for sale
PERT-AL-PER	Γ Multilayer pipe		
101.16500	With Oxygen diffusion barrier.PERT-AL- PERT multilayer pipe.	16 x 2,00	500 m



UltraSlim	Panel. F	For Klet	tt self-ad	hesive	pipe.

412.303046	 Ultra low profile especially suitable for refurbished. With adhesive layer, for direct installation on the existing floor. 	20 x 1,05 m. Thicness: 2 mm	21 m²



es directly on the slab so that **you can cut and rotate** obstacles, allowing a faster and more comfortable installation.

It is especially **indicated** for small spaces to get a quick feeling of comfort is an important added value. like the bathrooms or bedrooms of a hotel.

Electric Radiant Floor

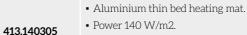


Electric	
442.470	
413.1603	3

radiant floor • Thin bed heating mat. • Power 160 W/m².

4 m² (length 8m; width 0,5m). Cable 3mm. 1 unit Available from 1m2 to 12m2 (on





· Installation of foam an under wooden floor or carpet.

4 m² (length 8m; width 0,5m). Cable 3mm. Available from 1m² to 12m² (on request consult)



Programmable digital thermostat

Electric radiant floor

• Programmable digital thermostat for electric underfloor heating.

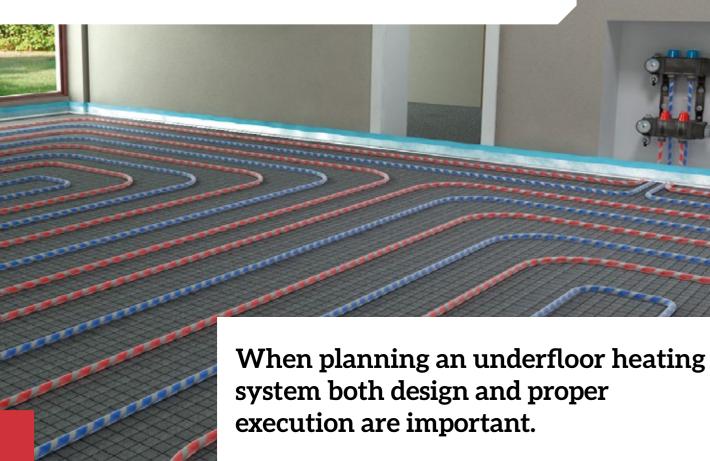
• Includes soil probe and temperature

80,5 x 80,5 x 42,5 mm.

1 unit

1 unit





However, the installation must be well managed so that everything works correctly and the system is energy efficient, in addition needs of each installation. to providing the desired comfort. For this we need elements that complete said installation, such as

regulation and control for heating and cooling, which allows us to offer different

In this sense, **the flow and** To install underfloor heating return manifolds are used to open or close each circuit,

facilitating its hydraulic to use profesional tools that regulation, and the low depth simplify the installation, recessed boxes allow to house contributing to the reduction solutions depending on the the manifolds and the rest of of the time spent. the accesories for regulation.

systems, it is also necessary

Control



Reference	Description	Min. Unit for sale
Room Thermo	stat with cable	
421.0014	Heating / Cooling.230V.	1 unit
	• 5 x 1,5 mm hose isntallation is recommended.	



AIS KLIMA COMMON ELEMENTS

Control

Room thermostat v	with cable F-C	
	With Cable I -C	
422.3012 • He	ating / Cooling.	1 unit



Programmable wireless digital thermostat

0		
	Heating / Cooling.	
	• 230V	
422.34230	• LCD screen of 58x34mm.	1 unit
	• Scheduling for weekdays, weekends or entire week.	
	• Up to 28 memories.	



Wireless digital programmable thermostat

422.5080	Heating / Cooling.	1 unit
	 Local operation and online WebApp 	Turit



Wireless room thermostat

poling. 1 unit



Thermostatic actuator

	• For the regulation of the underfloor heating-cooling circuit.	
421.1114L	 Includes connection piece and cable. 	1 unit
	• 230V.	



Thermostatic actuator with micro

422.5090	 Thermostatic actuator 230 V 4 wires with micro. For the regulation of the underfloor heating-cooling circuit. Includes connection piece and cable. 230V. 	1 unit
----------	--	--------



Underfloor heating connecting unit refrigerant. Power supply 230 V.

422.3222	• For 6 zones- 12 actuators.	1 unit
422.3223	• For 10 zones- 18 actuators.	1 unit



99

AIS KLIMA COMMON ELEMENTS

Control



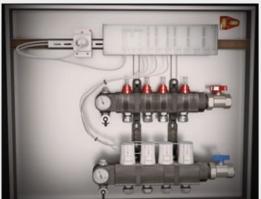
Reference	Description	Min. Unit for sale
Underfloor he	eating connecting unit refrigerant	
422.5073	Wireless. 4 zones - 6 actuactorPower supply 230V.WebApp Control	1 unit
422.5074	Wireless. 8 zones - 12 actuactor.Power supply 230V.Web App. Control.	1 unit

Manifold and manifold wall cabinets



Reference	Difficulty and Deficition	Min. Officior sale		
Underfloor heating maniflod box				
422.435110	46x71x11-15 cm (2-4 loops)	1 unit		
422.535110	60x71x11-15 cm (4-6 loops)	1 unit		
422.680110	75x71x11-15 cm (6-9 loops)	1 unit		
422.835110	90x71x11-15 cm (9-12 loops)	1 unit		
422.1035110	103x71x11-16 cm (12-15 loops)	1 unit		

Low depth manif	lod box	
422.435082	43x71x08-13 cm (2-4 loops)	1 unit
422.535082	53x71x08-13 cm (4-6 loops)	1 unit
422.680082	68x71x08-13 cm (6-9 loops)	1 unit
422.835082	83x71x08-13 cm(9-12 loops)	1 unit
422.1035082	103x71x08-13 cm (12-15 loops)	1 unit



Directsite pre-assembled manifold

- Directsite pre-assembled manifold in underfloor heating manifold box.
- Manifold material reinforced polyamide or stainless steel.
- Standard box or low depth manifold box.
- Number of outputs and configurable control components according to the project.

Request it, according to the needs of your project!



AIS KLIMA COMMON ELEMENTS

Manifold and manifold cabinets



11010101100	20001-2001	271111 01111 101 5010		
1" stainless steel manifold with automatic drain - 3/4" M eurocone outlets				
422.1002	2 loops	1 unit		
422.1003	3 loops	1 unit		
422.1004	4 loops	1 unit		
422.1005	5 loops	1 unit		
422.1006	6 loops	1 unit		
422.1007	7 loops	1 unit		
422.1008	8 loops	1 unit		
422.1009	9 loops	1 unit		
422.1010	10 loops	1 unit		
422.1011	11 loops	1 unit		
422.1012	12 loops	1 unit		

Composition: Return manifold with thermostatic valves, automatic drain and drain cock. Flow manifold with flow metre (0,1 a 5 l/min), automatic drain and drain cock. 1" red and blue dial keys with thermometres. Isophonic support. Eurocone output of ¾ Male. 50mm outlet spacing. Does not include adaptors.



AIS Air plastic kit manifold module tube 2 circuit

	■ Body 1 1/4".	
422.122	 Connection to main pipes in 11/4"M. 	1 unit
	• Supply and return circuits 3/4"M.	



AIS Air additional circuit module

422.111	■ Body 1 1/4".	1 unit
422,111	 Connection to power and return circuits 3/4" M. 	1 uiii

		Reference	Dimensions and benefits	Min. Unit for sale
s		Set 2 sphere wr	enches for plastic modular manifold	
		421.114100	1 1/4" H modular fitting - 1" H.	1 unit
0				

needs of your project!

AIS KLIMA COMMON ELEMENTS

Manifolds and wall cabinets





Reference	Dimensions and benefits	Min. Unit for sale	Min. Package qty.	
Monoblock eurocone adapter for PEX y PERT pipes				
421.8162034	16 x 2,00 - 3/4"	2 units	50 units	
421.8202034	20 x 2,00 - 3/4"	2 units	50 units	

Monoblock eurocone adapter for multilayer pipe

421.70316	16 x 2,00 - 3/4"	2 units	50 units

Installation accessories



Reference	Dimensions and benefits	Min. Unit for sale
AIS KLIMA ad	lhesive panel union tape coil	
412.4866	Coil 48mm x 66m	1 unit

Anti-moisture film

That mostare min		
420.5012	4mx25m. Thickness 0,2mm.	10m



Perimeter skirting with plastic skirt and scotch tape

420.150850	150mm x 8mm x 50m	50 m



11010101100	2-11 Out 101 Out

Polyamide guide curve for polyethylene pipe. Suitable for 16 mm - 20mm pipe		
421.1418	25 units	
421.2022	25 units	



Fluidizing additive for mortar. 25 Kg Carafe

460.1080	1 unit



AIS KLIMA COMMON ELEMENTS

Hidraulic Regulation

	Two-way zone	Two-way zone valve 2 MM motorised 230 V	
- 1-	422.6223034	3/4"	
	422.62230100	1"	
E CO			

	422.62
3	
	Bu-na

By-pass valve perimeter pressure 0,25 bar	

	-			
422.6025100		1	1"	1 unit

1 unit

Min. Unit for sale

1 unit



Drive group and mix to fixed point

Tube uncoilers for multilayer ergonomic

360.1140360

422.6000	-	1 unit
----------	---	--------

Tools





Height 870 - 1122 mm

Øext 1140 mm, Øint360 mm





360.61632	from 16 to 26 mm	1 unit
-----------	------------------	--------



Replacement blade for tube cutter scissors to diam. 40mm

360.816400	Up to diam. 40 mm.	1 uni	Ċ
	*		



Pipe cutter for PEX y Multilayer

360.81640	Up to diam. 40 mm.	1 unit
-----------	--------------------	--------

Replacement blade for scissors

•		
360.616260	-	1 unit



With the **Technical Support Service**, the **AIS** team of experts will be at your disposal to advise you throughout the entire project, from • Services for prescribers: You will be able to count on our the design pase to marketing and post-sale.

It is remote project, you can count on our support through our online applications and tools.

- Services for installers: On site support, technical assistance, documentation, budgets... we are here to advise you.
- calculation applications and online tools, BIM data and any other technical service in which we can advise you.

You can request our technical support for your project by contacting us by email at: info@aisconcept.com

AIS Support, next to you at every moment



Training during the 3 stages

- Plastic pipes
- Plumbing installations
- Heated floor facilities



beginning of the project

- Design and optimisation in the facilities
- Project quotation
- Insulation reports
- Condensation

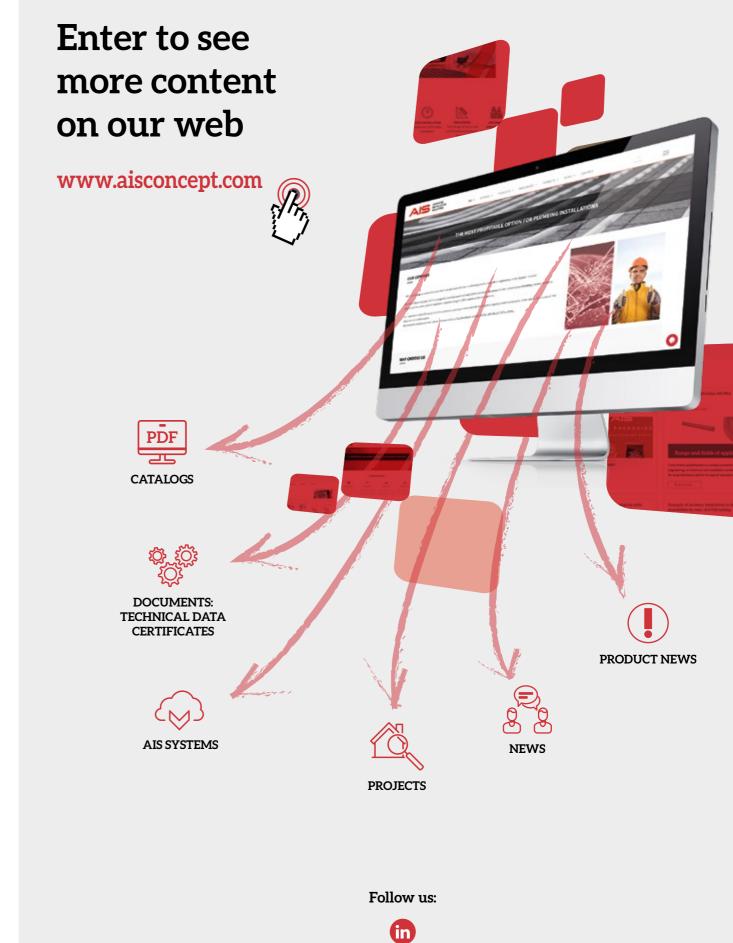


During the project

- Stakeout on site
- Online support • Online after sales
 - Material guarantee

After the

project







MULTICAPAS INDUSTRIAL GmbH

Handwerkerring 28

63776 Mömbris, Germany

Tel.: +49 6029 993039-0

info@aisconcept.com

www.aisconcept.com

