

VARMO **KLETT**

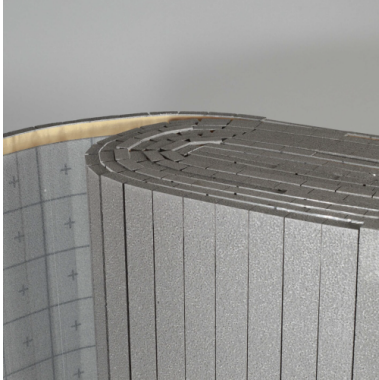
Technical Data Sheet VARMO KLETT

Insulation panel in rolls or mat

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Insulation panel in rolls or mat



VARMOKLETT

DESCRIPTION

The VARMO KLETT system is available in two versions: with a thin fibre mat or with a roll panel made of white sintered expanded polystyrene EPS (graphite EPS variant), with a protective non-woven fabric film applied, suitable for fixing special pipes wrapped with quick-release strips.

Both versions feature a grid pattern to aid pipe laying (50 mm laying pitch) and adhesive strips for securing the mat (on the underside) and panel (overlapping side).

The pipe used for the system is made of Pert EVOH 16x2 and is covered with a special tape that allows it to be attached to the mat or panel.





The VARMO KLETT system is suitable for the construction of radiant heating and cooling systems, has CE marking and complies with standards UNI EN 13163 and UNI EN 1264-4.

Recommendations: the panel or mat must be laid on perfectly flat and clean surfaces and always protected from direct sunlight and stored in a dry, ventilated place, away from heat sources and open flames.

ADVANTAGES

- Ideal for low-thickness systems
- Can be laid on pre-existing pavements
- Quick and easy installation: no tools are required and a single operator is enough
- Flexibility in installation: adapts to any room geometry without constraints imposed by bosses
- No limitation in the choice of coatings
- Versatile: no embossing means no constraints
- Optimum heat distribution with the pipe completely embedded evenly in the screed
- Grid pattern that facilitates pipe laying

FIELDS OF APPLICATION

APPLICATIONS	
	Underfloor heating
	Wet solution
	Cement screed (40-45mm above pipe)
	Self-levelling screed (thickness 10-20mm above pipe)

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DIMENSIONAL FEATURES (MAT)

	MC0000H502002H
Panel thickness (mm)	2
Roll length (m)	10
Roll surface (m ²)	20
Roll width (m)	1,05 (including selvedge 0.05 m)
Laying grid (mm)	50x50
Pipe diameter (mm)	16x2
Type of packaging	packaged roll

DIMENSIONAL FEATURES (WHITE EPS ROLL)

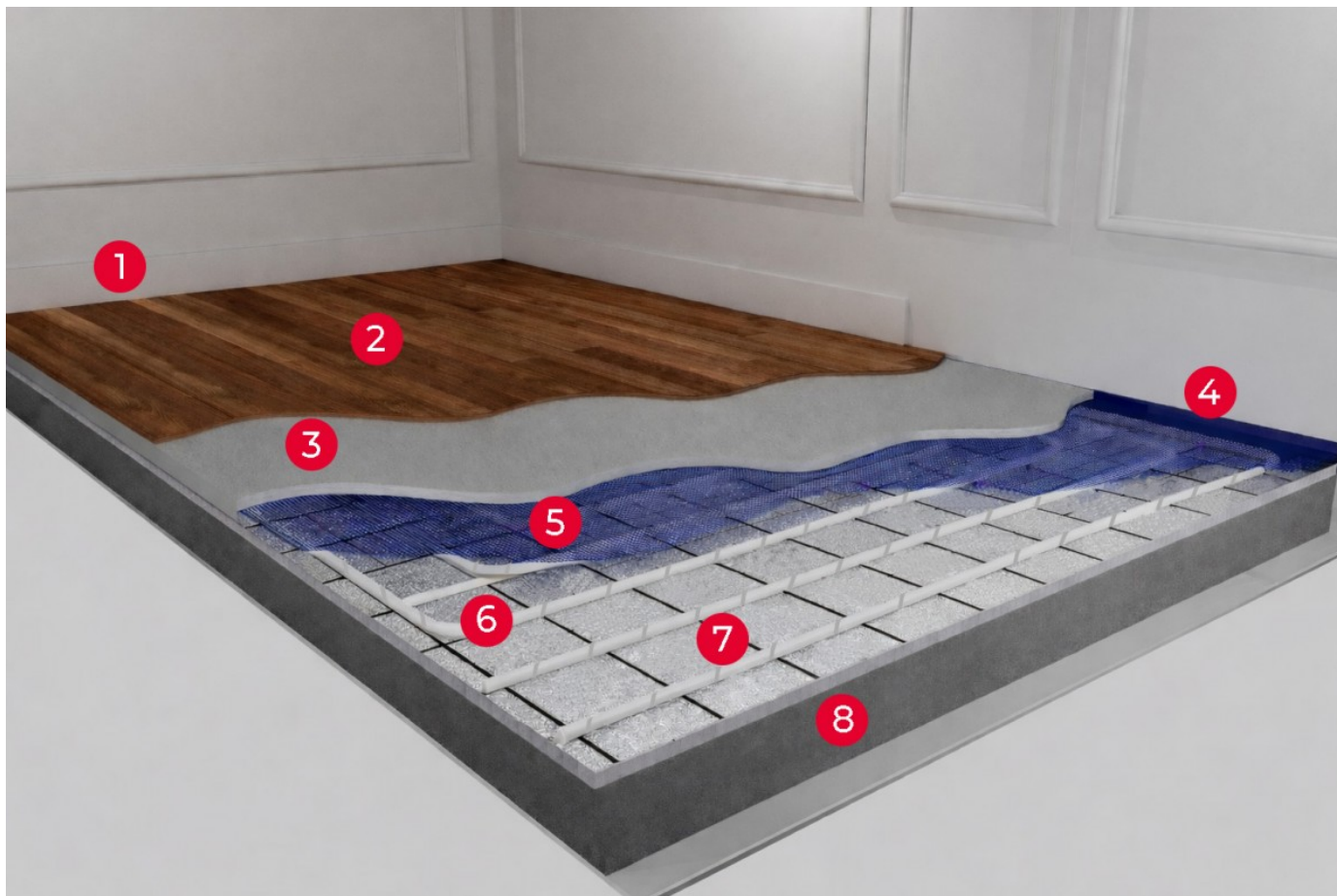
	PI00VKW200000 H	PI00VKW300000 H	PI00VKW400000 H	PI00VKW500000 H
Panel thickness (mm)	20	30	40	50
Roll length (m)	10			
Roll surface (m ²)	20			
Roll width (m)	1			
Laying grid (mm)	50x50			
Pipe diameter (mm)	16x2			
Type of packaging	Roll strapping and pallet filming			

DIMENSIONAL FEATURES (GRAPHITE EPS ROLL)

	PI00VKG200000H	PI00VKG300000H
Panel thickness (mm)	23	38
Roll length (m)	10	

	PI00VKG200000H	PI00VKG300000H
Roll surface (m2)	10	
Roll width (m)	1	
Laying grid (mm)	50x50	
Pipe diameter (mm)	16x2	
Type of packaging	Roll strapping and pallet filming	

STRATIGRAPHY



LEGEND	DESCRIPTION
1	Skirting
2	Covering
3	Screed
4	Edge Strip
5	Fibreglass mesh
6	Pipe
7	Varmo Klett insulation panel
8	Floor slab

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PHYSICAL FEATURES (ROLL PANELS)

	Reference standard	EPS / Class	VARMO KLETT
Declared thermal conductivity λ_D [W/mK]	UNI EN 12667	150	0.033 (WHITE EPS) 0.030 (GRAPHITE EPS)

	Reference standard	EPS / Class	VARMO KLETT
Compressive strenght at 10% strain σ_{10} [kPa]	UNI EN 826	150 / CS(10)150	150
Long-term water absorption WLT [%]	UNI EN 12087	150 / WL(T)0,5	0.5
Tolerance dim. thickness dN [mm]	UNI EN 823	T(2)	± 2
Dim. stabiligy at 23°C / 50% U.R. $\Delta\epsilon_l$	UNI EN 1603	DS(N)2	0.2
Resistance to vapour diffusion EPS μ	UNI EN 12086	150 / Z 30-70	30-70
Reaction to fire	EN ISO 11925-2 + EC1	EUROCLASS - E - UNI EN 13501	
Fire resistance against heat, atmospheric agents, degradation, ageing	UNI EN 13163	The fire behaviour of EPS does not change over time	

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THERMAL RESISTANCE (ROLL PANELS)

	Thermal resistance $R_{\square,ins}$ [m ² K/W]
PI00VKW200000H	0.61
PI00VKW300000H	0.91
PI00VKW400000H	1.21
PI00VKW500000H	1.51
PI00VKG2300000H	0.77
PI00VKG3800000H	1.27



GENERAL FITTINGS SPA

Via Golgi 73/75, 25064 Gussago (BS) - ITALY

te. +39 030 3739017

www.generalfittings.it