Industrial panels



VARMO INDUSTRIAL

Technical data sheet VARMO INDUSTRIAL

XPS flat insulation panel

GENERAL FITTINGS
YOUNIQUE · ITALIAN

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XPS flat insulation panel

VARMO INDUSTRIAL



DESCRIPTION

Underfloor heating is also the ideal solution for warehouses and industrial buildings, especially where there are large surfaces and heights, in combination with generators using alternative sources (photovoltaics, heat pumps, geothermal energy...) to produce energy at low temperatures.
This provides benefits for the occupants and a sustainable system in energy terms, given the savings due to reduced running and maintenance costs, coupled with low operating temperatures.
The system is also simpler and cheaper, as it has to guarantee lower flow rates and is less invasive than traditional systems.
Finally, it should be remembered that the heat generated is transmitted by radiation from the floor itself, providing comfort where it is needed and not at 'unnecessary' heights as is the case with air systems (where the heat stratifies at the highest part of the structure) which generate unnecessary waste.
VARMO INDUSTRIAL is a flat sheet insulation panel of extruded polystyrene foam with a smooth surface and a stepped perimeter finish and is suitable for thermal insulation and systems subject to high loads.
It has CE marking in accordance with UNI EN 13164 and complies with the Minimum Environmental Criteria (CAM).
Recommendations: the panel must always be protected from direct sunlight and stored in a dry, ventilated place, away from heat sources and open flames.

ADVANTAGES

- Ideal for installations subject to high loads
- Ideal for buildings with high heights as the diffusion of heat by radiation allows heating at head height
- Energy savings of up to 50 per cent compared to an air system
- Widespread comfort
- Less maintenance than other systems

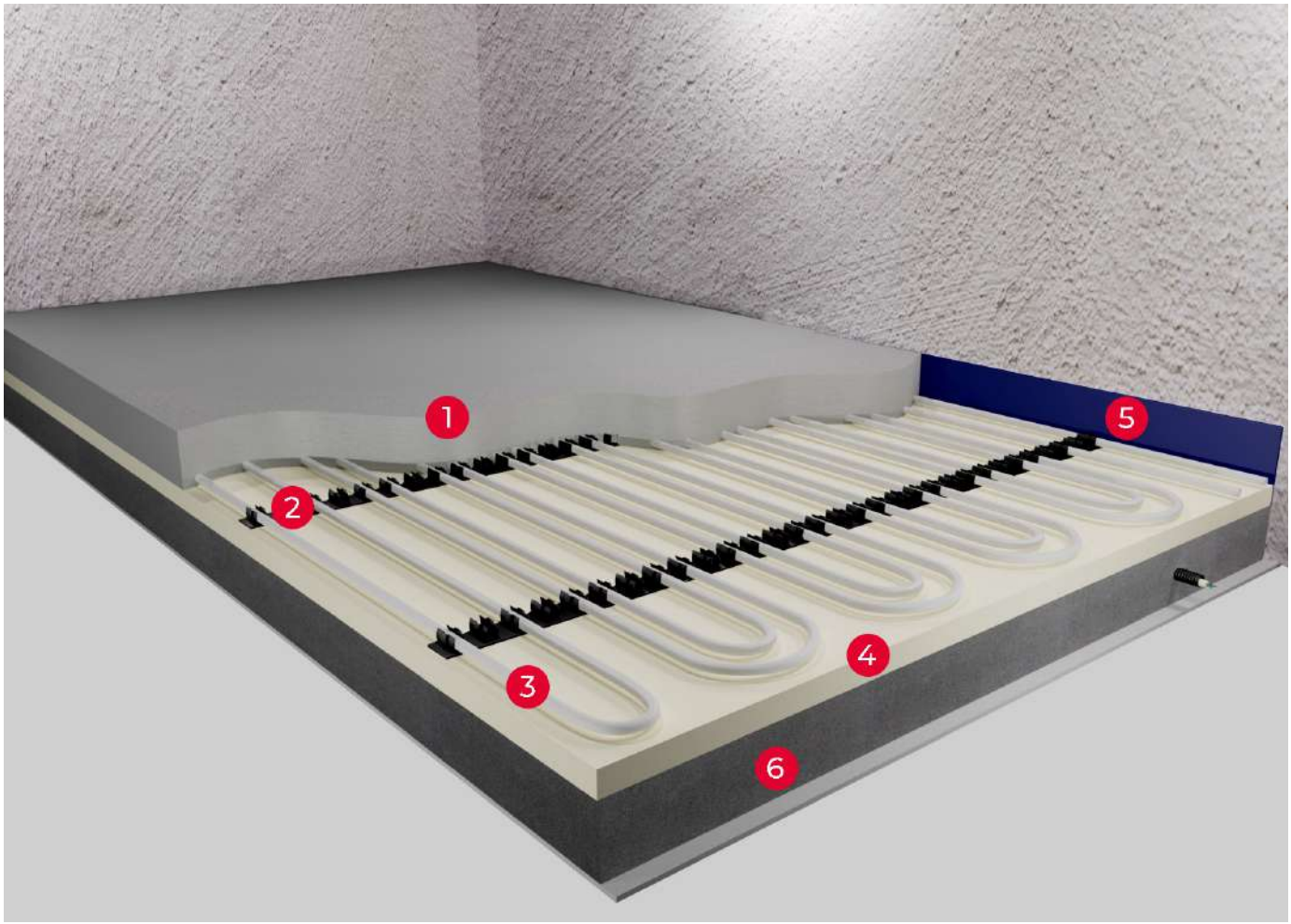
FIELDS OF APPLICATION

APPLICATIONS	
	Underfloor heating
	Wet solution
	Industrial cement screed (50-150mm above pipe)

DIMENSIONAL FEATURES

Code	Dimensions (mm)	No of panels per pack	m2/pack	Pallet packs	m2/pallet
PI00VIO300000H	30(±2) x 600(±3) x1250(±8)	14	10.5	12	126
PI00VIO400000H	40(±2) x 600(±3) x1250(±8)	10	7.5	12	90
PI00VIO500000H	50(±3) x 600(±3) x1250(±8)	8	6	12	72

STRATIGRAPHY



Key	Description
1	Industrial cement screed
2	Tracks
3	Pipe
4	Varmo Industrial insulating panel
5	Edge Strip
6	Floor slab

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PERFORMANCES

	Reference standard	VARMO INDUSTRIAL (all codes)
Surface finish		Smooth
Thermal conductivity λD - W/mK	EN 12667	0.033

	Reference standard	VARMO INDUSTRIAL (all codes)
Compressive strength at 10% deformation Max - kPa	EN 826	CS(10\Y)300*
Creep - compressive load for stress continuous (2% of max. deflection at 50 years) - kPa	EN 1606	CC(2/1,5/50)130
Water absorption Long-term total immersion - Vol.%	EN 12088	WD(V)3
Dimensional stability class (70°C, 90% r.h.)	EN 1604	DS(70,90)
Deformation under specific conditions of load and temperature	EN 1605	DLT(2)5
Resistance to vapour diffusion μ	EN 12086	150
Tensile strength perpendicular to faces - kPa	EN 1607	TR200
Frost-thaw resistance - Vol.%	EN 12091	FTCD1
Fire reaction class	EN 13501-1	E
Specific heat - J /kgK (at 20°C)	EN 10456	1450
*500 and 700kPa panels available on request		

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THERMAL RESISTANCE

	PI00VIO300000H	PI00VIO400000H	PI00VIO500000H
Thermal resistance RD [(m2 K)/W]	0.9	1.2	1.5

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