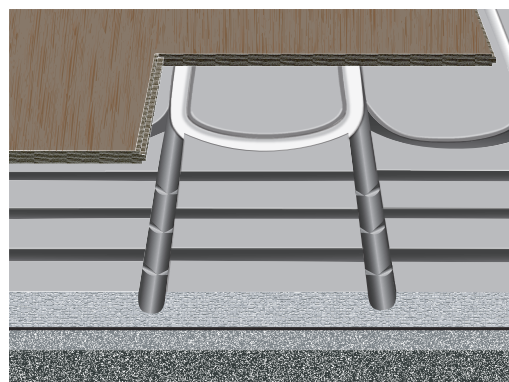


Harmoni Multi-Purpose Panel

Harmoni Multi-Purpose Panels utilise high compressive strength through expanded polystyrene, with a high tech aluminium foil covering. This acts as a heat conducting surface to transfer the heat from the pipes to the finished floor above.



20mm panels with 16mm pipe

Flow	Floor Covering					
Temp (DegC)	Tile (0.1 TOG)	Vinyl (0.5 TOG)	Laminate (0.8 TOG)	Engineered 18mm (1.4 TOG)	Carpet (2.0 TOG)	Carpet (2.5 TOG)
50	141	97	86	73	72	64
45	114	85	84	71	60	52
40	91	75	67	55	46	40
35	65	54	48	39	33	30

FEATURES & BENEFITS

- Provides ready-made pipe securing & spacing using pre grooved insulated boards.
- High compressive strength insulation, for the direct application of engineered wood floors.
- Offers a combined floating floor and underfloor heating solution.
- 600 × 1200 × 20mm (for 16mm pipe)
600 × 1200 × 16mm (for 12mm pipe)

		EPS
Density of EPS	Kg / m ³	Above 41
Thermal conductivity, 90 days, 10°C	W / mK	<0.034
Compressive strength at 10% deflection or yield, (vertical)	kPa	>420
Fire Protection Class		E
Quality Management System	1S09001	03615Q20891RIS

	Properties	Unit	Unit	Value
Measurements	Thickness	mm	DIN EN 823	20
	Length	mm	DIN EN 822	1200
	Width	mm	DIN EN 822	600
Tolerances	Thickness	mm	DIN EN 823	±0.5
	Length	mm	DIN EN 822	±5
	Width	mm	DIN EN 822	±1
	Rectangularity	mm / m	DIN EN 824	≤5
Property mechanics	Compressive strength or compressive stress at 10% deformation	kPa ^②	DIN EN 826	≥300 - ≥700 ^{①③}
	Tensile strength	kPa ^②	DIN EN 1607	≥600
	Compressive Modulus	N / mm ²	DIN EN 826	10-45 ^{①③}
Other properties	Density	kg / m ³	DIN EN 1602	>30
	Thermal conductivity	W / (m.K)	DIN EN 13164	0.035 - 0.037 ^③
	Working temperature	°C	/	-50 / +75
	Reaction to fire	/	DIN 4102-1	B1
		/	EN 13501-1	Euroclass E
	Long-term water absorption by total immersion	Vol - %	DIN EN 12087	≤1,0
	sD - value	m	DIN EN 12086	3-16 ^①
	Coefficient of linear thermal expansion	mm / (m.K)	/	0.07
	Dimensional stability under 70°C relative humidity 90%	%	EN 1604	≤5
Dimensional stability under 70°C temperature, 40kPa load	%	EN 1605	≤5	

Chemical resistance	Water / Seawater / Salt dilutions / Alcohol / Lique ed inorganic gases / Bases / Weak & diluted acids / Bitumen / Lime / Cement / Gypsum / Sand
Properties of XPS	Homogeneous, With close cells, Pressure resistant, Elastic; Hydrophobic, Non-rotting, Non-aging, Not ultraviolet-consistent; Machining of XPS with milling cutters, Saws, Heated laments
Adhesion	For example adhesion with hotmelt, epoxy, and polyurethane solution adhesive without solvents
Treatment	Cutting with shaping, sawing, hot-wire, shearing

Fine tolerance filament sliced surface

^① Depending on thickness

^② 10.0 kPa = 10.0 kN/mm² = 0.1 N/mm²

^③ Depending on compressive strength

Edison House
 Edison Close
 Ransomes Europark
 Ipswich , Suffolk IP3 9GU
 United Kingdom

Tel: 01473 559088
 Email: info@harmoniheating.co.uk
 Web: www.harmoniheating.co.uk

harmoni
 wet underfloor heating