

XPS400 DUAL-PURPOSE OVERLAY BOARD

- Our XPS400 kpa boards come with 200 microns of aluminium foil to achieve quick, even spread of heat across the floor.
- Our boards are suitable for wooden and screed subfloor. They can be tiled on straight, (being 400kpa), using solvent free adhesive.
- Please see the following diagram to understand the difference in spread of heat with different thickness of aluminium on the overlay board. Boards without aluminium foil or a very thin layer of aluminium foil may work out cheap initially, but they can result in higher energy / fuel bill over the period of time.
- Our overlay boards have aluminium foil in the grooves too, which means that heat will actively reflect to the floor and result in faster heat transfer.
- The above-mentioned features make our panels very effective and energy efficient, resulting in lower fuel bills.
- Offers a combined floating floor and underfloor heating solution
- 600 x 1200 x 20mm (for 16mm pipe)
- 600 x 1200 x 16mm (for 12mm pipe)

Temperature distribution in radiant floor with various thickness of aluminium radiant sheet at water temperature 45°C



16mm Panels With 12mm Pipe (120 Pipe Center)

Flow	Floor covering W/m2					
Temp (DegC)	Tile (0.1 TOG)	Vinyl (0.5 TOG)	Laminate (0.8 TOG)	Engineered 18mm (1.4TOG)	Carpet (2.0 TOG)	Carpet (2.5 TOG)
50	105	91	70	59	50	42
45	90	78	60	50	42	35
40	75	64	50	42	35	30
35	51	42	38	31	26	23

20mm Panels With 16mm Pipe (150 Pipe Center)

Flow	Floor coveringW/m2					
Temp (DegC)	Tile (0.1 TOG)	Vinyl (0.5 TOG)	Laminate (0.8 TOG)	Engineered 18mm (1.4TOG)	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

Technical data sheet of XPS 400 20-16

		XPS400
Density of EPS	Kg/m3	Approx 40
Thermal conductivity, 90 days, 10°C	W/mK	<0.034
Compressive strength at 10% deflection or yield, (vertical)	kPa	>420
Fire Protection Class		B2
Quality Management System	1SO9001	EN13164

	Properties	Unit	Unit	Value
	Thickness	mm	DIN EN 823	16 or 20
Measurements	Length	mm	DIN EN 822	1200
	Width	Unit Unit mm DIN EN 822 mm/m DIN EN 822 kPa DIN EN 824 kPa DIN EN 824 kg/m3 DIN EN 824 W/(m .K) DIN EN 1602 Vol-% DIN EN 13164 °C / Vol-% DIN EN 12087 mm/(m .K) / % EN 13604	DIN EN 822	600
	Thickness	UnitUnitmmDIN ENmmDIN ENmmDIN ENmmDIN ENmmDIN ENmmDIN ENmm/mDIN ENmm/mDIN ENmm/mDIN ENmm/mDIN ENtrength or ress at onkPaDIN ENDIN ENtrength or ress at onkPaDIN ENDIN ENtrength or ress at onkPaDIN ENDIN ENtrength or ress at onKg/m3DIN ENDIN ENtrength or ress at onV/(m .K)DIN ENDIN ENthkg/m3DIN ENDIN ENctivityW/(m .K)DIN E 1316erature°C/DIN 410.er sonVol-%DIN E 1208inear sionmm/(m .K)ability/	DIN EN 823	± 0,5
Tolorancos	Length	mm	DIN EN 822	± 5
Toterances	Width	mm	DIN EN 822	± 1
	Rectangularity	Unit Unit mm DIN EN 822 mm/m DIN EN 822 mm/m DIN EN 822 kPa DIN EN 824 kPa DIN EN 824 kPa DIN EN 824 kg/m3 DIN EN 824 W/(m .K) DIN EN 1602 Vol-% DIN EN 13164 °C / / DIN 4102-1 / DIN EN 13201-1 Vol-% DIN EN 12087 mm/(m .K) / % EN 13604	DIN EN 824	≤5
	Compressive strength or compressive stress at 10% deformation	ive strength or ve stress at kPa DIN EN rmation rength kPa DIN E 160 ⁻	DIN EN 826	≥300 - ≥700 *
Property mechanics	Tensile strength	kPa	DIN EN 1607	≥ 600
	Compressive modulus	N/mm2	DIN EN 826	10 - 45 *
	Density	kg/m3	Unit DIN EN 823 DIN EN 822 DIN EN 822 DIN EN 823 DIN EN 824 DIN EN 826 J J J J J J J J J J J J J <	> 30
	Thermal conductivity	W/(m .K)	DIN EN 13164	0,035 - 0,037 *
	Working temperature	°C	/	-0.6666666 67
	Departieur ta firm	iesUnitUnitssmmDIN EN 82ssmmDIN EN 82ssmmDIN EN 82ssmmDIN EN 82yularitymm/mDIN EN 82yularitymm/mDIN EN 82ssive strength or ssive stress at formationKPaDIN EN 82strengthkPaDIN EN 82strengthkPaDIN EN 82strengthkPaDIN EN 82g temperature°C/n to fire/DIN EN 1301rm water ion by total onmm/(m .K)JIN EN 12087ional stability 0°C temperature, ad%EN 1602adSinal stability 0°C temperature, ad%EN 1602	DIN 4102-1	B2
	Reaction to fire	/	EN 13501-1	Euroclass E
Other Properties	Long-term water absorption by total immersion	Unit Unit mm DIN EN 823 mm DIN EN 822 mm DIN EN 822 mm DIN EN 823 mm/m DIN EN 823 gth or kPa sat kPa N/mm2 DIN EN 826 kg/m3 DIN EN 1607 ity W/(m .K) DIN EN 1602 ity W/(m .K) DIN EN 13164 ure °C / / DIN 4102-1 / I Vol-% DIN EN 12087 r mm/(m .K) / ity % EN 1604 ity % EN 1605	≤1,0	
	Coefficient of linear thermal expansion	mm/(m .K)	/	0,07
	Dimensional stability under 70°C relative humidity 9 0 %	asOrneOrnesmmDIN EN 823mmDIN EN 822mmDIN EN 822smmDIN EN 823mmDIN EN 823mmDIN EN 823mmDIN EN 823mmDIN EN 823mmDIN EN 823ularitymmsive strength or sive stress at prmationkPabit EN 826DIN EN 826prmationN/mm2trengthkPakg/m3DIN EN 1602conductivityW/(m .K)bit En 1364temperature°C/DIN EN 13164temperatureVol-%nDIN EN 12087nt of linear expansionmm/(m .K)of c relative y 9 0 %%EN 1604 y 9 0 %%	≤5	
Measurements Length Width Inickness Tolerances Length Property mechanics Compressive strength or compressive strength or compressive stress at 10% deformation Property mechanics Tensile strength Image: Strength Image: Strength Compressive modulus Image: Strength Image: Strength Image: Strength Compressive modulus Image: Strength Image: Strength Image: Strength Compressive modulus Image: Strength Image: Strength Image: Strength Image: Strength	%	EN 1605	≤5	

* Subject to compressive strength and thickness