

NOW  
IN STOCK

duo.

by fastwarm<sup>®</sup>

QUICK TO INSTALL | LOW PROFILE SYSTEM | OPTIMUM EFFICIENCY

# DUAL PURPOSE OVERLAY BOARD

AVAILABLE PIPE SIZES

12MM

16MM

SUITABLE FLOORING

✓ WOOD

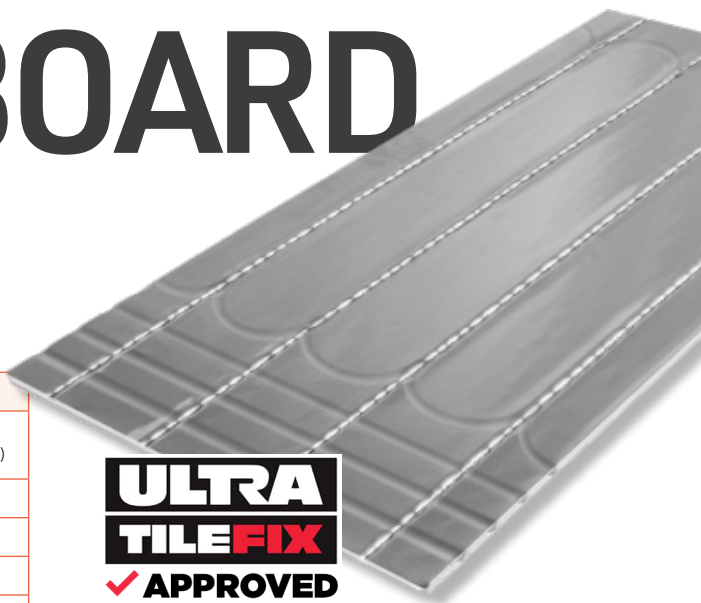
✓ TILE

## 16mm Panels With 12mm Pipe

Flow Temp (DegC)	Floor covering					
	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

Flow Temp (DegC)	Floor covering					
	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



**ULTRA  
TILE FIX**  
✓ APPROVED

Fastwarm<sup>®</sup> Duo 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.

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fastwarm<sup>®</sup>

# DUAL PURPOSE OVERLAY BOARD



## 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
- Typical outputs up to Up to 76w/m<sup>2</sup>
- 600 x 1200 x 20mm (for 16mm pipe)
- 600 x 1200 x 16mm (for 12mm pipe)

## Technical data sheet of EPS 400 20-16

SIZE 1200\*600\*20MM, PIPE OD 16MM, CHANNEL SPACE 150

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

# INSULATION BOARDS



## 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
- Typical outputs up to Up to 76w/m<sup>2</sup>
- 600 x 1200 x 20mm (for 16mm pipe)
- 600 x 1200 x 16mm (for 12mm pipe)

	Properties	Unit	Unit	Value
Measurements	Thickness	mm	DIN EN 823	16 or 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 1 0% deformation	kPa <sup>②</sup>	DIN EN 826	≥ 300 - ≥ 700 <sup>①③</sup>
	Tensile strength	kPa <sup>②</sup>	DIN EN 1607	≥ 600
	Compressive modulus	N/mm <sup>2</sup>	DIN EN 826	10 - 45 <sup>①③</sup>
Other Properties	Density	kg/m <sup>3</sup>	DIN EN 1602	> 30
	Thermal conductivity	W/(m .K)	DIN EN 13164	0,035 - 0,037 <sup>③</sup>
	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 <sup>①</sup>
	Coefficient of linear thermal expansion	mm/(m .K)	/	0,07
	Dimensional stability under 70°C relative humidity 9 0 %	%	EN 1604	≤ 5
Dimensional stability under 70°C temperature, 40 kPa load	%	EN 1605	≤ 5	

Chemical resistance	water / seawater / salt-dilutions / alcohols / 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/m<sup>2</sup> = 0,1 N/mm<sup>2</sup>    ③ depending on compressive strength

