fastwarm®
UNDERFLOOR HEATING

INSULATION BOARDS

DATA SHEET

Our XPS Insulation boards are designed for use with Fastwarm® electric underfloor heating systems on substrates consisting of concrete or screeded floors.

The Fastwarm® XPS Insulation boards have been engineered to withstand compression strength values of up to 30 tonnes per m2, whilst being extremely lightweight, highly efficient and economic. Making this thermal insulation board a perfect choice for installing electric underfloor heating on to a concrete or screeded floor.

PROPERTIES		VALUE		UNIT	STANDARD	CE CODE
Density (typical value)		33		kg/m³	EN 1602	
Thermal Conductivity Declared		0.031 0.032	< 150 mm ≥ 150 mm	W/m.K W/m.K	EN 13164	λ_D
Compressive stress or compressive strength @ 10% deformation		300		kPa	EN 826	CS(10\Y)
Tensile Strength(1)		600		kPa	EN 1907	TR
Shear Strength		250		kPa	EN 12090	SS
Moduli (typical values)	E-Modulus	12 15 20	< 30.0 mm 30 < ≤ 80.0 mm > 80.0 mm	MPa MPa MPa	EN 826 EN 826 EN 826	
	Tensile Modulus (1)	24	> 50.0 mm	MPa	EN 1607	
	Shear Modulus G	8		MPa	EN 12090	
Water vapour diffusion resistance factor μ (tabulated value)		150		-	EN 12086	MU
Long term water absorption by total immersion		1.5		%	EN 12087	WL(T)
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)		< 5		%	EN 1604	DS(70,90)
Coefficient of linear thermal expansion (typical value)		0.07		mm/(m.K)	-	-
Fire Performance		E		Euroclass	EN 13501-1	
Temperature limits		-50/+75		°C	-	
Tolerances	Thickness	-0.5/+0.5		mm	EN 823 T	
	Width	-0/+3	< 700.0 mm	mm	EN 822	
	Width	-0/+5	> 700.0 mm	mm	EN 822	
	Length	-0/+10		mm	EN 822	
Dimensions	Thickness	6 - 50		mm	EN 823	
	Width	600		mm	EN 822	
	Length	1200		mm	EN 822	
Edge Profile		Butt Edge				
Surface finish		Planed				

ENVIRONMENTAL SAFETY & BIOLOGICAL FACTORS

Fastwarm® hard foam is not affected by bacteria, moulds or fungi and will not provide nutrient value for insects or vermin. It is non-toxic, non-irritant and odourless and has a Global Warming Potential (GWP) of zero and an Ozone Depletion Potential (ODP) of zero.

THERMAL INSULATION

Fastwarm® Hard Foam is a closed cell material with excellent stable thermal properties based on entrapped air. It has a thermal conductivity of 0.032 w/mk.

MOISTURE RESISTANCE

Fastwarm® Hard Foam is non-hygroscopic and is therefore moisture resistant whilst retaining its thermal properties.

DURABILITY

Fastwarm® Hard Foam is rot proof and durable and will remain effective as an insolent for the life of the construction (when installed as recommended).

1 Measured in thickness direction

2 Typical value for Shear Modulus, may vary with the inplane direction.
1 $N/mm^2 = 10^3$ kPa = 1MPa

Material shall be stored inside in original packaging, away from direct sun light or heat sources