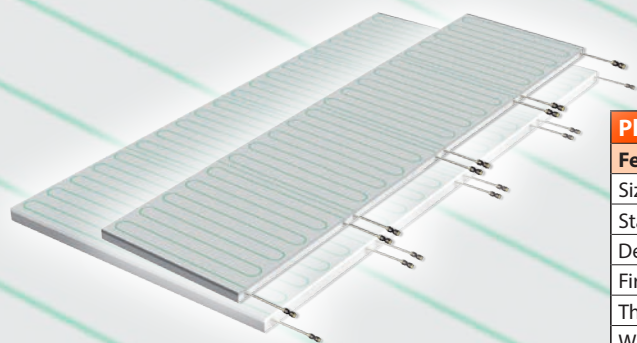


RADIANT PANEL MADE OF PLASTERBOARD WITH INSULATING POLYSTYRENE



B!klimax+ radiant panels are made up of plasterboard and a insulation layer of polystyrene. The plasterboard shows a drawing of the hydraulic circuits. b!klimax+ radiant panels contain 4 hydraulic circuits, made of PE-HDXc pipe Ø 6 mm with anti-oxygen barrier according to DIN 4726 and provided with push-fit fittings. Pipes are fixed to the panel through an aluminium metal diff user, while thermal insulation is represented by a layer of moulded polystyrene, thickness 40 mm and density 30 Kg/m³, specifically designed to accommodate PB pipes.



Radiant Panel	Weight (Kg)	Code
Radiant panel 600x2400	14.6	6142160
Radiant panel 1200x2400	29.2	6142100

Plasterboard Panel				
Feature	600	1200	Unit	Standard
Sizes	600x2400	1200x2400	mm	
Standard thickness:	12.5		mm	
Density	760		Kg / m ³	
Fire reaction	A2-s1,d0			
Thermal conductivity	0.20		W / (m . K)	
Water vapour diffusion	10			EN 10456

Polystyrene Panel					
Features		600	1200	Unit	Standard
Size of the panel		600x2400	1200x2400	mm	UNI EN 822
Standard thickness		40		mm	UNI EN 823
Thickness of the insulating base		34		mm	UNI EN 1264-3
Equivalent total thickness		38.6	38.8	mm	UNI EN 1264-3
Bending strength	BS	170		kPa	UNI EN 12089
Compressive stress at 10% deformation	CS(10)	120		kPa	UNI EN 826
Thermal conductivity at 10 °C	λd	0.035		W/(m • K)	UNI EN 12667
Thermal resistance	Rd	1.10		(m ² • K)/W	UNI EN 12667
Thermal transmittance	U	0.90		W/(m ² • K)	
Water vapour diffusion resistance factor	μ	30 ÷ 70			UNI EN 12086
Water vapour permeability	δ	0.009 ÷ 0.020		mg/(Pa • h • m)	UNI EN 12086
Dimensional stability at 48h and 70 °C	DS(70,-)	1		%	UNI EN 1604
Long term water absorption by partial immersion	Wlp	0.5		Kg / m ²	UNI EN 12087
Long term water absorption by total immersion	WI(T)	≤3		%	UNI EN 12087
Reaction to fire	Euroclass	E			EN ISO 11925-2
Limit of operating temperature		70		°C	
Declaration according to UNI EN 13163		T1-L3-W2-S2-P5-BS170-CS(10)120-DS(70,-)1-WL(T)3-MU(30-70)			

PE-HDXc pipe								
Outer diameter (mm)	Thickness (mm)	S-value	SDR-value	CLASS 4		CLASS 5		Water Content (l/m)
6	1	2.5	6	T _{MAX} 60 °C	10 bar	T _{MAX} 80 °C	10 bar	0,013

S = nominal pipe serial number according to ISO 4065, SDR = standard dimension ratio, allocation of SDR values, according to DIN 16893 and/or DIN EN ISO15875-2

Feature		Value	Unit	Reference law
Degree of cross-linking	23°C	≥ 60	%	DIN 16892
Density	23°C	≈ 0.94	g/cm ³	DIN 16892/DIN 53479
Flexural impact strength according to Charpy	23°C	no failure	kJ/m ²	DIN EN ISO 179-1/2
Tensile strength	23°C	24 ÷ 30	N/mm ²	DIN EN ISO 6259-1
Tenacity	23°C	24 ÷ 26	N/mm ²	DIN EN ISO 6259-1
Elongation at break	23°C	400 ÷ 600	%	DIN EN ISO 6259-1
Elastic modulus (Emodule)	23°C	600 ÷ 800	N/mm ²	DIN 16892/DIN EN ISO 128
Stress crack resistance		no failure		ASTM D 1693
Moisture absorption		<0,01	mg (4d)	DIN EN ISO 62
Coefficient of linear expansion	0°C – 70°C	1,5 · 10 ⁻⁴	1/K	DIN 16892 / DIN 53752
Thermal conductivity		≤ 0,41	W/(K · m)	DIN 16892 / DIN EN 12664
Smallest bend radius		≥ 5 · D	mm	DIN 4726
Oxygen tightness	40°C	≤ 0,32	mg/(m ² · d)	DIN 4726

