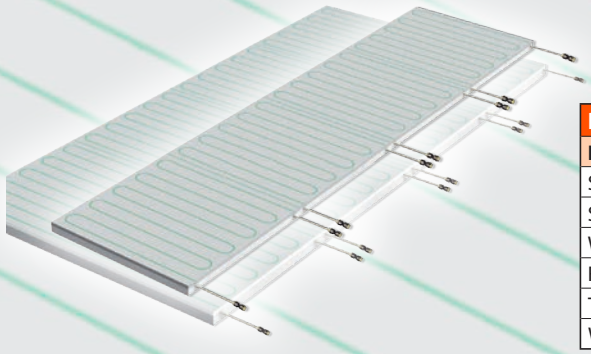
TECHNICAL SHEET

RDZ

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/m^3, specifically designed to accommodate PB pipes.



Radiant Panel	Weight (Kg)	Code
Radiant panel 600x2400	15,6	6142160
Radiant panel 1200x2400	31,2	6142100

Plasterboard Panel				
Feature	**600**	**1200**	**Unit**	**Standard**
Sizes	600x2400	1200x2400	mm	
Standard thickness	12,5		mm	
Weight	9,20		Kg / m^2	
Fire reaction Class	A2-s1,d0			EN13501-1
Thermal conductivity	0,21		W / (m . K)	EN ISO 10456
Water vapour diffusion resistance factor	μ dry: 10, humid: 4			EN ISO 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	Wl(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	TMAX 60 °C	10 bar	TMAX 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

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

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